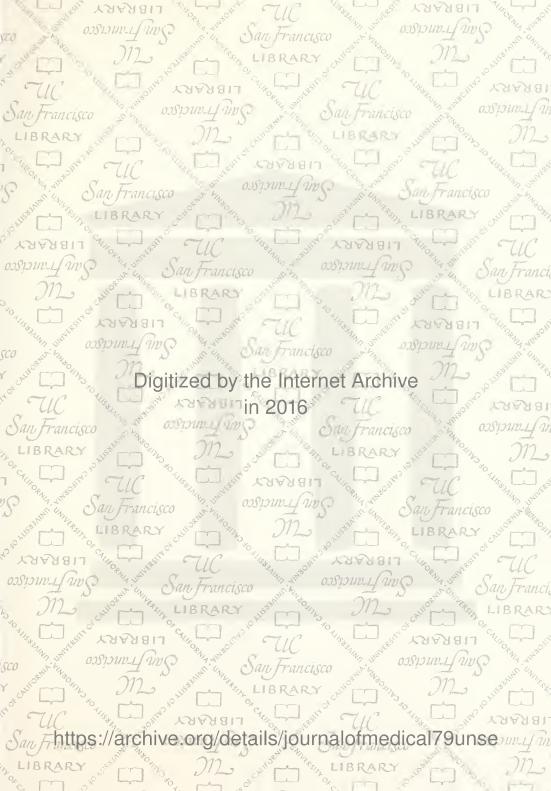


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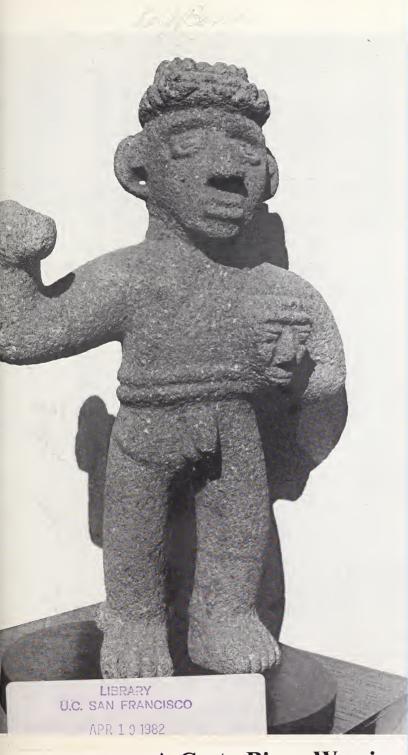
Immune Responses in Carcinoma of Colon and Rectum

Ralph S. Greco, M.D.

Percutaneous Transluminal Coronary Angioplasty J. Liguori, M.D., et al.

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11 PROFESSIONAL LIABILITY COMMENTARY EDITORIALS

- 13 Matthew E. Boylan, 1915-1981
- 13 The Structure of Organized Medicine
- 14 Position Statement: Medical Licensing and Discipline
- 14 A Costa Rican Warrior

ARTICLES

- 19 Immune Responses in Carcinoma of the Colon and Rectum Ralph S. Greco, M.D., Piscataway
- 25 Percutaneous Transluminal Coronary Angioplasty at a Community Hospital J. Liguori, M.D., R. Werres, M.D., D. Rothfeld, M.D., Newark
- 29 Medical Management of Occlusive Arterial Disease Heinz I. Lippmann, M.D., Teaneck

STATE OF THE ART

35 Relationship of Hypercholesterolemia to Coronary Heart Disease Marvin L. Bierenbaum, M.D., Montclair

CASE REPORTS

- 38 Intussusception Due to Intestinal Tubes Tzu-Chi Hsu, M.D., Samuel Diener, M.D., Newark
- 40 Crisis in Sickle Cell Trait: A Case of Probable Trait with Catastrophic
- AU Crisis in Sickle Cell Trait: A Case of Probable Trait with Catastroph Neurologic Presentation
- Susan D. Gisser, M.D., Tjoa A. Tjiptohardjo, M.D., Camden
- 43 Brown-Séquard Syndrome and Piebaldism
 A. S. Stefaniwsky, M.D., M. J. Nissenblatt, M.D., Piscataway

NUTRITION UPDATE

47 Is Obesity a Genetic Disorder? Gilbert Forbes, M.D., Rochester, NY

DOCTORS' NOTEBOOK

- 49 CMDNJ Notes
- 50 MSNJ Auxiliary
- 50 Transactions New Home
- 51 Information for Use of Human Blood and Blood Components
- 60 Physicians Seeking Location in New Jersey
- 64 LETTERS TO THE JOURNAL
- 65 PERSONAL ITEM
- 67 CME CALENDAR
- 70 ANNUAL MEETING SCHEDULE
- 71 OBITUARIES
- 72 BOOK REVIEWS

Cover

The cover photograph (see editorial on page 14) was taken by Ernestine Ruben, a Princeton photographer. Her work has been published in the *New York Times* and she has had numerous exhibits.

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Letters to the Editor are welcome. Here again, the bounds of good taste and legal considerations dictate a measure of restraint, although correspondents are free to express their opinions.

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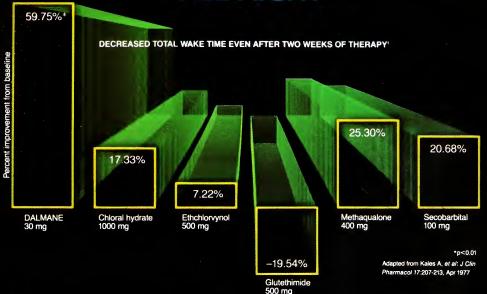
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- Compatible with chronic warfarin therapy; no unacceptable fluctuation in prothrombin time reported⁷⁸

UNLIKE NONSPECIFIC MEDICATIONS USED FOR SLEEP

Tricyclic antidepressants

- -which are not sleep specific,⁹ yet are sometimes used in nondepressed patients for sleep
- -which can cause transient insomnia in the elderly'0
- –which can require careful monitoring in cardiovascular patients¹⁰
- -which have strong anticholinergic effects10

Antihistamines

- -which are not reliable sleep-inducing agents"
- -which may produce stimulation instead
- -which have anticholinergic effects11

Major tranquilizers

- -whose side effects may be troublesome for nonpsychotic patients¹²
- -where tolerance for sedation appears rapidly12

Dalmane does not cause significant worsening of sleep beyond baseline levels upon discontinuation.4

References: 1. Kaies A, et al. J. Clin Pharmacol 17, 207-213. Apr 1977. 2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ. 3. Greenblatt DJ. Allen MD. Shader RI: Clin Pharmacol Ther 21, 355-361. Mar 1977. 4. Kaies A, et al. Clin Pharmacol Ther 18, 355-363. Sep 1975. 5. Moore DJ. Weissman Lo. Cliffmanocol To 241-241. May Jun. 1976. 5. Decept HE 1975. 5. Moore DJ. Weissman Lo. Cliffmanocol To 241-241. May Jun. 1976. 5. Decept HE 241-241. May Jun. 1976. Decept HE 241. May Jun

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who minist increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, hearburn, upset stomach, nausea, vomiting, diarrhea, constipation, Gl pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect.

Adults: 30 mg usual dosage; 15 mg may suffice in some patients. Elderly or debilitated patients: 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



ROCHE PRODUCTS INC. Manati, Puerto Rico 00701

Professional Liability Commentary*

Featuring: Possible Dividend From MIIENJ Drug Company Troublesome Sell

MIJENJ ANNOUNCES RATE INCREASE AND POSSIBLE DIVIDEND

The Medical Inter-Insurance Exchange reports that there may be some good news for company policyholders who were insured during 1977. Due to economies affected by the Claim Department and the overall lean, cost effective nature of their operations, a dividend may be possible.

The Exchange is a reciprocal insurance company and, therefore, a nonprofit company with the policyholders benefiting from any leftover premiums. Peter Sweetland, Exchange President, was not able to predict at the time of this article the exact amount of money ultimately available by the end of the year. Matters of this type need the approval of the Department of Insurance and, of course, the Exchange's Board of Governors. If this dividend occurs, it will be the first such action of this type in New Jersey physicians' liability insurance history.

However, all the news is not good. Continuing trends show a need for higher premiums in the most recent years. The Exchange's Board of Governors has filed a request with the Department of Insurance for a 16.1 percent rate increase for 1982. This request will replace a filing made for 1981 which sought a 9.7 percent rate boost. The 1981 filing never was approved. The Exchange has not had a rate adjustment since 1980 and feels the present action is mandatory to keep pace with the underlying inflationary trends in malpractice claims and, in particular, recent adverse court decisions which broaden the amounts and kinds of damages collectible from physicians.

DRUG COMPANY HARD SELL CAN BE TROUBLESOME FOR PHYSICIANS

James E. George, M.D., J.D. Madeline S. Quattrone, J.D.

If the executives at Merck Sharp & Dohme have their way, practicing physicians will be collecting coupons this fall. These coupons are not of the investment type—rather, they are newspaper coupons bearing the legend "tear out this coupon and show it to your physician."

The coupon requests the physician to inform the patient whether or not he is an appropriate candidate for vaccination with Pneumovax® under Medicare coverage. This approach is part of a massive advertising campaign by Merck directed to the Medicare patient. The large eye-catching ad accompanying the coupon tells the reader that pneumococcal pneumonia is a serious health hazard and a leading cause of death among people over age 65, especially among those who suffer from diabetes, lung, kidney, or heart ailments.

The ad also explains that the vaccine may provide protection against the most common causes of pneumonia, and informs the reader of its availability under Medicare. After learning the good news, the reader may or may not feel inclined to read the small print, which consists of disclaimers under the heading "Why you should consult your doctor to determine if this vaccine is right for you." Some of the possible adverse side effects are noted under the heading "Special Considerations."

While many physicians may welcome an informed and educated patient, one wonders whether a hard-sell, direct advertising pitch is an appropriate or responsible means of patient education. Does the ad campaign signal a new trend in direct advertising of pharmaceuticals to the general public? Will the ad raise unjustifiable expectations? What effect will the ad have on the patient who in the medical judgment of his physician is deemed to be a noncandidate for the vaccine?

The Merck ad has important implications for the practicing physician in terms of obtaining informed consent, an area of potential liability. The physician's medical determination as to the appropriateness of the use of this vaccine in a particular patient must be carefully made and carefully documented. Physicians who are asked to prescribe the vaccine by their patients are well advised to be more familiar with the medical literature on Pneumovax® than their patients in order to meet this increased burden.

NEW JERSEY STATE BAR OFFERS PROGRAMS

The New Jersey State Bar Medical/Legal Liaison Committee has volunteered to conduct programs dealing with medical/legal problems at the request of any medical group.

The programs have been developed in a continuing attempt to improve the relationship between the medical and legal professions.

Topics include, but are not limited to, Physician Attendance in Court; Operation of *Rule 4:21*, Medical Malpractice Panels; and Preparation of Reports in Connection with Litigations.

Physicians or other medical personnel are welcome as copanel participants.

A four-week advance notice is required for any program. For further information contact Thomas R. Chesson, Esq., Chairman, Medical/Legal Liaison Committee, 163 Madison Avenue, CN 097, Morristown, NJ 07960 or call 201-538-4006.

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department and Assistant Director and Editor.

FAILURE TO DIAGNOSE ACUTE MYOCARDIAL INFARCTION

A tragic and all too common occurrence in emergency medicine is the misdiagnosis of an impending myocardial infarction (MI). Emergency physicians are haunted by stories about the patient who has been examined and released from the emergency department (ED) with a diagnosis of minor illness, only to collapse and die of an acute MI moments after discharge. These tragic incidents often result in litigation and may lead to sizeable settlements or jury awards.

Emergency physicians may take some limited comfort from the fact that a mistaken diagnosis may not be sufficient grounds for a medical malpractice suit. Not every misdiagnosis constitutes medical negligence. A physician who is found to have used the skill and care of a reasonably prudent physician will not be found liable for an erroneous diagnosis. Often, the question of liability will depend on whether the physician took a proper history, performed the usual and customary physician examination, and ordered the appropriate laboratory tests to determine the nature of the patient's problem. In addition to proving negligence on the part of the defendant physician, the plaintiff must prove that the physician's negligence was the cause of the patient's injury or death.

In many cases emergency physicians can avoid charges of negligent misdiagnosis and mistreatment of myocardial infarctions by following the general rule: Assume the patient is a confirmed cardiac emergency until proven otherwise.

The emergency physician must use every available means of making a proper diagnosis when the patient complains of chest pain. This includes obtaining a complete history, conducting a thorough physical examination, ordering and correctly interpreting the EKG, and reviewing any available medical records pertaining to the patient's condition.

When all chest pain patients are considered, the vast majority of them can be disposed of on the basis of a thorough history and physical examination, assuming of course that there are no obvious EKG findings. The emergency physician's greatest asset in this area is a good history.

On the other hand, the on-call medical staff tends to require EKG evidence of cardiac injury in order to be properly impressed with the chest pain patient. One of the emergency physician's greatest challenges in this area is to convince the on-call medical staff member that the patient's clinical history alone warrants admission. This is most difficult for the emergency physician to accomplish over the telephone late at night when the on-call medical staff physician is home in bed.

The ED patient who complains of chest pains can be expected to visit the ED in increasing numbers. This is especially true in view of the public's widespread awareness of the symptoms of coronary artery disease. Therefore, it is imperative that emergency physicians do everything they possibly can to become clinically competent in dealing with

the complaint of chest pain in the emergency department.... Excerpted from *Emergency Physician Legal Bulletin*, produced by James E. George, M.D., J.D.

1981 PREMIUM INCREASES OF PHYSICIAN-OWNED LIABILITY COMPANIES

The following chart capsulates the premium increases of the physician-owned liability insurance companies, effected or requested since January, 1981.

The chart taken from the September, 1981 Medical Liability Monitor (previously known as Malpractice Lifeline) was developed from information furnished from the physician-owned companies or from the American Medical Assurance Company.

Premium Increases Effected or Requested Since January, 1981 (Physician-Owned/Medical Society-Created Liability Companies)

Zidomi, Componer,				
Company	Coverage Type	Increase		
Alabama (MASA)	CM/O*	24%		
Arizona (MICA)	CM	None		
California (MIEC)	CM	10%		
Califarnia (Norcal)	CM	17.5%		
California (SCPIE)	CM	20%		
District of Calumbia (NCRIC)	0	None		
Florida (PIMCO)	CM	20%		
Illinois (ISMIE)	0	11.6%		
Kentucky (KMIC)	0	20%		
Maine (MMICM)	CM	20%		
Maryland (MMLIS)	0	34%		
Michigan (MPMLC)	0	None		
•		(-9%)		
Minnesota (MMIE)	CM	15%		
Mississippi (MMFES)	CM/O	25%		
Missauri (MMIC)	0	25%		
New Jersey (MIIENJ)	0	9.7%		
New Mexico (NMPMLC)	0	None		
New York (MLMIC)	0	52%		
North Carolina (MLMIC)	CM	24%		
Ohio (PICO)	0	20%		
Oklahoma (PILC)	0	None		
Pennsylvania (PMSLIC)	CM/O	Nane		
Tennessee (SVMIC)	CM	None		
Texas (TMLT)	0	None		
Utah (UMIA)	0	12%		
		(net 7%)		

^{*}CM - Claims made 0 - Occurrence

PLD Editor's Note: New York Superintendent of Insurance—upon completion of public hearings and the study of the physician-owned insurance company's request for a 52 percent increase, the JUA's request for a 367.8 percent increase, and the State's independent study indicating a 107 percent premium increase has been approved — approved a 26 percent rate increase.

EDITORIALS

Matthew E. Boylan, 1915-1981 181st President, MSNJ

Matthew Edward Boylan, a quiet and private man, died on November 26, 1981, less than one month after his wife, Dorothy, expired.

Matt was a friendly and easygoing man, a man devoted to administrative and organized medicine, to his family, and to the elderly. He served the elderly as a physician and an advocate; his activities in gerontology (Fellowship in the American Geriatric Society; Chief of Geriatric Medicine, St. Francis Hospital in Jersey City) made him a natural choice as consultant to the Home Health Care Program of New Jersey and a Trustee of the Regional Health Facilities Planning Council.

Dr. Boylan was one of New Jersey's most decorated physicians in World War II. After graduation from Loyola University School of Medicine, he did postgraduate study at the School of Aviation Medicine in Texas and received a

degree as Aviation Medical Examiner in 1942. Dr. Boylan attained the rank of major in the United States Army Air Corps in which he had a distinguished career. He was awarded the African-European-Middle East Campaign Ribbon with nine battle stars, and a Presidential citation with oakleaf cluster; the French government bestowed upon him the Croix de Guerre avec Palme.

Matt Boylan was an "organization man"; he reached the top of this society because of a reserved personality that engendered respect from his colleagues. His level head, good memory, and attention to detail, qualities of importance to him, stuck in the minds of his closer associates.

Matthew E. Boylan has departed from this earth after creating a respectable legacy of accomplishments during a relatively short life. He will be missed by his family and his friends—in and out of medicine.

A.K.

The Structure of Organized Medicine: The Correct Solution to the Incorrect Problem

I once read in an introductory textbook to computer science that the first step to problem resolution is clear definition of the problem since the correct solution to the wrong problem is absolutely useless. Having observed and participated in the structure and function of organized medicine since 1967, I have reached the conclusion that, indeed, we have effected the correct solution to the wrong problem.

The structure of organized medicine is in absolute shambles and resembles the very institution we so often criticize—the monolithic, confused, and incompetent bureaucracy. There are too many internal faction organizations attempting to execute the same tasks and providing service to the same constituency. The result is that we lack efficiency and economy and rarely, if ever, achieve timely action.

An illustration of this difficulty is the Washington lobbying effort of the profession. The AMA maintains extensive Washington offices. A number of state medical societies maintain Washington offices. Also, a large number of national specialty societies maintain Washington offices. The average physician belongs to a county medical society, a state medical society, and the AMA. He also belongs to at least one state, regional, and national specialty society. Actually, he often belongs to two or three specialty societies. Therefore,

on any given day two to five organizations are attempting to represent this doctor's interest to the same political entity. Each organization uses different staffs and techniques, and each has a differing perspective of the problem. The product of this activity is chaos. If I thought it were orchestrated chaos, I would be more sanguine about the situation.

Annually, the individual responsible for the physician's financial affairs will point out to him that he is supporting 6 to 12 medical societies with the same avowed goals and purposes. He then will question whether this type of duplication is necessary since it surely is expensive. The doctor will ponder and ponder and . . . ?

There is competition for the dues dollar. That competition will have its effect. I can see it now! The number of medical societies competing for the professional dues dollar is exceeding the available amount of financing. Difficult times are ahead

There is a solution. The AMA and the national specialty societies must sit down and allocate areas of function and activity. We cannot play football with five quarterbacks and six receivers. Someone has to hike the ball, block, and occasionally run the tough yards. The time for this discussion is now. The solution may not be available five years from now

I also perceive a problem within the AMA federation concept. The county medical society is our organizational base. National data, however, indicate that this unit is the least adequately financed and not always staffed properly. If this arrangement is to continue, the county society must recruit and employ association executives and supply them with the necessary support staff and financial resources. If a given county society cannot pay for such an undertaking, then a regional staffing unit should be utilized to provide executive and administrative services to a number of county

societies.

Finally, we must align our priorities. It is an exercise in futility to base the sum and substance of our being on meetings. Such a premise is anachronistic. The focal point of the physician's professional life is the hospital medical staff. We must bring our message, service, and presence to that site.

Service, and not meetings, is what the physician is demanding.

Vincent A. Maressa, J.D. Executive Director, MSNJ

Position Statement: Medical Licensing and Discipline*

Over the course of the last ten years, the Medical Society of New Jersey has observed an increase in the disciplinary and regulatory functions of the State Board of Medical Examiners. While a heightened awareness and activity on the part of the State Board is desirable, the current activity is being executed in such a fashion as to cause grave concern among the medical and legal professions in New Jersey.

The Medical Society of New Jersey has noted a number of distressing features in the appointment process which demand corrective action.

- 1. Tenure—Currently there is no limitation on the number of years an individual may serve on the State Board of Medical Examiners. A number of appointees have been in office since 1967, if not earlier. Service on the Board should not be extended indefinitely. Physician members should be limited to no more than six years of service.
- 2. Age—At least four of the nine M.D.s on the Board are over the age of 70. Service on the Board requires a multiplicity of skills and certainly demands a high level of clinical competence and knowledge of the current art and science of medicine, along with the necessary amount of judicial temperament. The concept of mandatory retirement at age 70, which is applicable to civil and criminal judges, should be applied to members of the State Board of Medical Examiners.
- 3. Clinical Experience—The concept supporting the professional board structure in New Jersey is that the licensed professional serving on the Board should be conversant with

the standards of the profession he/she is licensing and regulating, as well as the practical application of professional training in the clinic setting. A substantial number of the M.D.s on the State Board of Medical Examiners are not active practitioners and do not have ongoing contact in clinical settings. They are, therefore, removed from a realistic evaluation of the effect of their decisions on the profession and the public it serves. All M.D. members of the Board should be in fulltime clinical or consultative practice.

4. Medical Society of New Jersey Evaluation of Candidates for the State Board of Medical Examiners—The Medical Society of New Jersey is the largest medical society in the State with over 85 percent of New Jersey's physicians as members. Indi —als being nominated for the Board should be screened and evaluated by the Society with its report being advisory to the Governor. The stature and integrity of the Society is well recognized by law in New Jersey and prior consultation on appointments would assure that the individuals considered are respected and of accomplishment within their profession. (Note: The Supreme Court of New Jersey appoints physicians named by the Medical Society of New Jersey to service on Judicial Panels.)

Implementation of the above concepts by the Governor would create an effective, realistic, and accountable licensing and regulatory structure in New Jersey.

*Approved by the Board of Trustees, MSNJ, November 15, 1981.

A Costa Rican Warrior

The cover figure of the "Standing Male" is from the collection of pre-Columbian art owned by Dr. and Mrs. Albert L. Rosenthal.

Carved from volcanic stone, the subject originated in Costa Rica, during the period 1000 to 1500 A.D. The physical characteristics of this fine, 17-inch specimen are the pointed lower jaw, pursed lips, ridged and sunken eyes, large oval-shaped pierced ears, and the striated straight hair seen at the back (not visible in our cover photograph). This "naturalistic style" was characteristic of the final period of development that ended with the conquest of the Spanish Conquistadors.

The carved icon depicts a warrior holding a weapon (knife or ax) in his right hand and a trophy head, possibly of a slaughtered enemy or of a human sacrifice, in his left hand. Also, one should note the woven belt worn by the subject.

The Nelson A. Rockefeller collection contains a similar sculpture belonging to the same period of pre-Columbian art; yet, the Rockefeller warrior specimen holds the trophy head in his right hand and the weapon in his left hand.

Dr. Rosenthal, a Lawrenceville dermatologist, now is the Chairman of the Board of the New Jersey State Museum in Trenton.

A.K.



Dr. I. David Weisband, of the Regional Orthopedic Professional Association, is one of a growing number of physicians who've found Minicom's Medical Practice Management System meets the unique needs of a medical practice.

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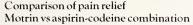


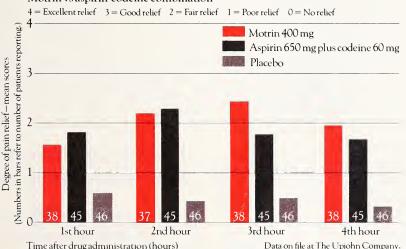


compare the analgesic effect

A Motrin 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the Motrin and aspirin-with-codeine groups... with Motrin being significantly more effective (p = 0.03) at the three-hour interval.

Active treatment was significantly more effective (p < 0.0001) than placebo at all time intervals.





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For relief of mild to moderate pain:



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Please turn the page for a brief summary of prescribing information.



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Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheum. oid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added. Drug interactions. Aspirn. Used concomitantly may decrease Motrin blood levels. Coumann. Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea, epigastric pain, heartburn, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). Central Nervous System: bizziness, headache, nervousness. Dermatologic: Rash, (including maculopapular type), pruritus. Special Senses: Timitus. Metabolic: Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. Central Nervous System: Depression, insormia. Dermatologic: Vesiculobulous eruptions, urticaria, erythema multiforme. Cardiovascular: Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. Special Senses: Amblyopia (see PRECAUTIONS). Hematologic: Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. Central Nervous System: Paresthesias, hallucinations, dream abnormalities. Dermatologic: Alopecia, Stevens-Johnson syndrome. Special Senses: Conjunctivitis, diplopia, optic neuritis. Hematologic: Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. Allergic: Fever, serum sickness, lupus erythematosus syndrome. Endocrine: Gynecomastia, hypoglycemia. Cardiovascular: Arrhythmias. Renal: Decreased creatinine clearance, polyurna, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain. Do not exceed 2400 mg per day.

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Immune Responses in Carcinoma of the Colon and Rectum*

RALPH S. GRECO, M.D., Piscataway

In vitro studies of cell-mediated immunity demonstrate that major surgical procedures are attended by perioperative immunosuppression. Patients with colon cancer demonstrate greater immunocompetence in the perioperative period than those with carcinomas of the rectum. All carcinomas of the colon and rectum behave antigenically in a dissimilar way suggesting a dietary or chemical etiology. For small rectal lesions, local procedures such as electrocoagulation, well may be preferable to abdominoperineal resection. However, their effectiveness is unrelated to changes in immunity.

or more than a decade, it has been recognized that surgical resection has reached a plateau in terms of the cure of carcinoma of the colon and rectum. Though refinements in surgical technique, improved cardiorespiratory supportive care and newer antibiotic regimens have reduced perioperative mortality, data from the National Cancer Institute show that approximately one-half of all patients with carcinoma of the colon and rectum still die within five years of diagnosis. For the subgroup of patients with regional lymph node metastases, the five-year survival rate is less than 20 percent. The use of a variety of chemotherapeutic and immunotherapeutic approaches has not improved the survival of patients with this extremely common and devastating malignancy.

Despite this dismal history, the application of tumor immunology and immunological assays to patients with colon and rectum cancer has increased our understanding of the basic biology of this disease and raised the hope that such information will lay the groundwork for effective multimodal therapy in the not-too-distant future.

The purpose of this report is to review the immunology of colon and rectum cancer, utilizing tumor-associated antigens prepared from the tumor itself in an *invitro* immunological assay which has been applied frequently and reproducibly in carcinoma of the colon and rectum.

MATERIALS AND METHODS

- 1. Leukocyte Migration Inhibition Assays: Leukocyte migration inhibition assays (LMI) were performed by the method of McCoy and associates² and have been described by this author in a number of previous reports.³⁻⁶
- 2. Potassium Chloride Extraction Procedure: Tumor tissue obtained at biopsy or resection of the colon was placed in sterile saline containing penicillin and gentamycin, minced, pressed through a wire mesh screen and centrifuged. Twenty ml of 3M potassium chloride were added to the tissue and it was stored at 4°C for 24 hours. After centrifugation at 40,000 x g for 60 minutes, the supernatant was dialyzed using a μ m 10 membrane and concentrated to a volume of 10 ml. Extracts then were sterilized by millipore filtration and protein concentration determined by the Lowry method. Sterility was determined by incubating 0.1 ml of each extract in thioglycollate for 72 hours.

CLINICAL APPLICATION

1. Perioperative Immunosuppression in Patients Under-

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Table 1 Origin of Synchronous KCI Extracts

T1—Duke's B Sigmoid Carcinoma from Patient #1

- T2—Duke's C Descending Colon Carcinoma from Patient #1
- P1—Sigmoid Adenomatous Polyp from Patient #1
 T3—Duke's C Transverse Colon Carcinoma from Patient #2
- T3—Duke's C Transverse Colon Carcinoma from Patient 7
 T4—Duke's C Sigmoid Carcinoma from Patient #2
- T5—Duke's B Sigmoid Carcinoma from Patient #2
- T6—Duke's B Transverse Colon Carcinoma from Patient #3

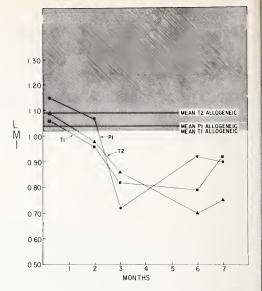
going Elective Operations: Forty patients undergoing elective general surgical and orthopedic procedures utilizing general anesthesia were evaluated in this study. Patients with malignant lesions, acute or chronic infections and those taking immunosuppressive medication were excluded from the study. Assays in all patients were performed before and after surgery against streptokinase-streptodornase. All patients were studied preoperatively, 48 hours after operation and again, one and two months postoperatively.

Thirteen patients had skin tests with streptokinase-streptodornase as well as LMI assays and there was a 100 percent correlation between skin tests and LMI assays. Twenty-seven patients had positive LMI assays preoperatively; of this group 23 became negative immediately after operation and four remained positive. In ten patients, LMI assays returned to positive by 30 days after operation. In nine patients, LMI assays returned to positive by 60 days after operation and remained negative in four patients more than 60 days postoperatively. Of the 13 patients with negative preoperative assays, ten remained negative and three became positive.

2. Relationship Between Immunity and Survival in Carcinoma of the Colon and Carcinoma of the Rectum: Cancer patients were tested by the LMI assay before surgery, 48 to 96 hours after surgery and two to four months after surgery. LMI assays were performed against both autologous and allogeneic tumor extracts. All tumor extracts were tested in the LMI assay against the leukocytes of normal volunteers.

Before operative intervention, patients with carcinoma of the colon demonstrated statistically significant migration inhibition (p < 0.01) against autologous tumor extracts and this persisted in the period immediately after operation (p < 0.05). However, in the late postoperative period, statistically significant migration inhibition disappeared. Autologous LMI assays in rectal carcinoma were evaluated statistically in the same manner as for colon cancer. At all time intervals, the LMI indexes of patients with rectal cancer were not statistically significant compared with those of the control group. Allogeneic LMI assays also were performed in all patients. In these studies, there was not statistically significant migration inhibition in either colon or rectal cancer at any time. Finally, the mean LMI index of patients with colon cancer and those with rectal cancer was evaluated against time. All patients became less immunocompetent by the LMI assay as they progressed from the preoperative period to two to four months after surgery.

3. Antigenicity of Single and Synchronous Colon Cancers: Two groups of patients with colon and rectum cancer were tested against allogeneic extracts in studies of synchronous cancers and compared to both autologous and allogeneic assays in studies of single colorectal cancers. The origin of each of the synchronous cancer extracts is shown in Table 1. In all groups of patients tested against every synchronous extract, there was no statistically significant difference



Figure—Autologous leukocyte migration inhibition assays against antigen T1, T2 and P1. Straight lines in shaded area show the means of the allogeneic assays against the same antigens.

whether studied by variance analysis or by Mann-Whitney analysis for nonparametric distributions. Because of the lack of cross reactivity in the allogeneic assays, an attempt was made to determine whether the synchronous extracts were reactive in autologous assays. One patient, the source of three extracts, was available for autologous testing. LMI assays against all three extracts were studied and became positive two months after colectomy at the same time that CEA values became markedly positive (> 30 ng/%) (Figure 1).

On the other hand, when the autologous LMI assays of patients with single colorectal cancers were compared to controls, the results were highly significant by both variance analysis and Mann-Whitney test. However, in the allogeneic LMI assays of patients with single colorectal cancers, there was no statistically significant difference by either analysis between the LMI assays of cancer patients and controls just as with the synchronous extracts.

4. Immunity in Electrocoagulation and Resection for Adenocarcinoma of the Rectum*: Forty patients with cancer of the rectum were chosen for study. Twenty patients underwent electrocoagulation as primary, curative therapy and 20 other patients were treated by abdominoperineal or low anterior resection. All patients operated upon were resected for cure.

Electrocoagulation was performed in any patient having a histologically confirmed rectal carcinoma below 7.5 cm from the anal verge, when one-half or less of the circumference of the rectum was involved without fixation of the presacral fascia or rectovaginal septum. Patients undergoing abdominoperineal resection were those with lesions of similar size and site to the above. Lesions of this type above 7.5 cm but below the peritoneal reflection were treated by low anterior resection. Thirty percent of patients undergoing electrocoagulation had positive LMI assays preoperatively.

"These studies demonstrate a general immunosuppressive effect of operation and general anesthesia on all patients undergoing major general surgical procedures."

In the immediate postoperative period, LMI assays were positive in 25 percent of patients, but in the late postoperative period, only 15 percent had positive LMI assays. On the other hand, 25 percent of patients undergoing abdominoperineal or low anterior resection had positive LMI assays before operation, 15 percent in the immediate postoperative period and five percent in the period two to four months after operation. When the mean LMI assay of the two groups was compared with time, those in the resection group became less positive as one progressed from the preoperative period to the period two to four months after operation. The electrocoagulation group, on the other hand, shows improved LMI values in the immediate postoperative period which then were depressed two to four months after operation. When these data are evaluated by variance analysis with time and control assays as covariants, however, there are not statistically significant differences.

Mortality rates for the electrocoagulation group and resection group are identical in this series. Four patients (20 percent) died in each group and one of the deaths in each group was caused by a metachronous squamous cell carcinoma. In the abdominoperineal or low anterior resection group, four recurrences occurred resulting in three deaths. The other patient with recurrence is alive but refused treatment. The results in the electrocoagulation group are much more varied. Nine patients are thriving without evidence of disease. Two patients underwent a repeat electrocoagulation and are free of disease. Five patients had recurrence and underwent abdominoperineal resection; two of these have died of their disease. Three other recurrences occurred; one patient died after another electrocoagulation, but two others are alive and well.

DISCUSSION AND CONCLUSIONS

These studies demonstrate a general immunosuppressive effect of operation and general anesthesia on all patients undergoing major general surgical procedures. Because this immunosuppression affects normal patients undergoing elective surgical procedures, it must be borne in mind to an even greater degree in patients undergoing major extirpative surgery for cancers of the colon and rectum. Any attempt to provide useful information on immunity in patients with cancer of the colon and rectum requires preoperative evaluation of their immunocompetence as a baseline to which postoperative parameters can be compared.

Evidence also has been presented which suggests that the observed difference in survival between patients with carcinoma of the colon and those with carcinoma of the rectum may be based on variations in immunocompetence. Patients with cancer of the colon demonstrated significant migration inhibition against autologous extracts before surgery and in the immediate postoperative period. Patients

... "the observed difference in survival between patients with carcinoma of the colon and those with carcinoma of the rectum may be based on variations in immunocompetence."

with rectal cancer, on the other hand, did not demonstrate significant migration inhibition at any time. Thus, the possibility that immunity plays a role in the poorer prognosis of patients with rectal cancer must be seriously considered.

Elias first suggested that colorectal cancers behave immunologically as distinct lesions and that reactivity is limited to autologous antigens. Others, however, have reported equal reactivity in the LMI assay to both autologous and allogeneic tumor extracts. Our data clearly support a lack of cross reactivity among allogeneic extracts in both single and synchronous cancers of the colon and rectum. However, patients with colorectal cancers appeared to react in a very significant way to autologous tumor extracts. These results support the conclusion that these lesions are antigenically dissimilar and even may harbor individually specific antigens.

Finally, our data show that electrocoagulation has no effect on cellular immunity as measured by the LMI assay. The small differences in the immediate postoperative period are most likely secondary to anesthetic variation and do not persist two to four months after treatment. On the other hand, electrocoagulation appears to cure certain rectal cancers and to allow for a far superior quality of life thereafter. It is possible that for small lesions below 7.5 cm from the anal verge, electrocoagulation or local resection should be the first treatment attempted. Since most recurrences appear within three months after electrocoagulation, these then can be treated by abdominoperineal resection. The risk of change in clinical stage during this period must be weighed against the clearly superior quality of survival in patients cured by electrocoagulation. The decision to employ electrocoagulation should not be based on a presumption of its effect on immune parameters. Rather, the choice between electrocoagulation and abdominoperineal resection is a clinical judgment which must weigh the risk of recurrence or metastases against the superior quality of survival.

SUMMARY

Cell-mediated immunity in normal patients and those with carcinoma of the colon and rectum was evaluated by the leukocyte migration inhibition assay using soluble tumor extracts prepared by hypertonic potassium chloride extraction. These studies demonstrated that patients undergoing elective general surgical procedures have suppression of cell-mediated immunity in the perioperative period which lasts up to 60 days after operation. In addition, patients with cancer of the colon demonstrate superior immunocompetence in the perioperative period compared to patients with rectal cancers suggesting that immunity may play a role in the observed difference in survival between colon cancer and rectal cancer. The evaluation of leukocyte migration inhibition in patients with colon cancer against tumor

"Elias first suggested that colorectal cancers behave immunologically as distinct lesions and that reactivity is limited to autologous antigens.^{7,8}"

antigens prepared from synchronous colon cancers shows a lack of cross reactivity between these lesions and suggests antigeneic dissimilarity. Finally, patients with rectal cancer treated by electrocoagulation and resection were compared and no difference in the assay could be distinguished between these two groups. Thus, the decision to employ electrocoagulation in carcinoma of the rectum should not be based on hypothetical changes in the immune response.

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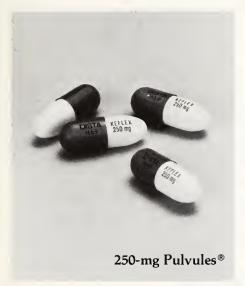
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Percutaneous Transluminal Coronary Angioplasty at a Community Hospital—Initial Experience

JAMES LIGUORI, M.D., ROLAND WERRES, M.D., DONALD ROTHFELD, M.D., Newark*

Percutaneous transluminal coronary angioplasty is discussed as an alternative to aortocoronary bypass surgery in selected patients. Initial experience, results and complications with this procedure at Newark Beth Israel Medical Center are presented and conclusions are drawn regarding the efficacy of the procedure as well as possible future indications.

ercutaneous transluminal coronary angioplasty (PTCA) is an investigational technique that has been performed on well over 1200 patients since Grüntzig performed the first successful dilatation in 1977.

Recent publications have provided evidence that balloon angioplasty effectively can dilate stenotic coronary artery lesions and provide immediate improvement in myocardial perfusion and performance in carefully selected patients.^{2,3} The National Heart, Lung and Blood Institute has organized a registry in order to investigate the long-term effects, risks, indications, and contraindications of this procedure. Our group at Newark Beth Israel Medical Center has been involved in this investigational procedure for the last ten months. Grüntzig estimates that five to 15 percent of patients now undergoing aortocoronary bypass surgery could benefit from this procedure.

The ideal candidates are patients with a short history of angina with angiographic evidence of significant single-vessel obstruction. The lesions should be easily accessible, discrete, concentric and noncalcified. The ventricular function should be uncompromised and angina uncontrolled by medical therapy. All candidates for PTCA must be candidates for coronary bypass surgery and must have accepted surgery as alternative therapy. To date we have performed ten angioplasties on patients selected by the above criteria. This report summarizes our experience.

METHODS AND MATERIALS

The ten patients selected for PTCA had a relatively short history of angina with inadequate response to medical treatment. There were eight men and two women. The mean age was 52 years with a range of 37 to 59 years. All patients had a thallium exercise test to document objective myocardial ischemia and to provide a baseline for non-invasive followup. Coronary angiography demonstrated significant obstruction in a major vessel that appeared easily accessible to the dilatation catheter. All patients were considered candidates for coronary bypass surgery.

TECHNIQUE^a

For three days prior to the procedure the patients were treated with aspirin and dipyridamole in addition to their antianginal medication. The procedure was performed in the cardiac catheterization suite under local anesthesia and full heparinization. Catheterization is performed by the Judkins

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^aAll PTCA's performed by Roland Werres, M.D.

"Increasing angina, ST segment shifts or other findings suggesting severe ischemia are considered indications for termination of the procedure and immediate bypass surgery is performed."

technique.b After confirmation of the lesion a guiding catheter is introduced and positioned at the ostium of the stenotic vessel. Through the guiding catheter a double lumen dilatation catheter with an inflatable polyvinylchloride balloon is introduced into the coronary artery. Pressures are monitored from the end of the guiding catheter and from the central lumen of the dilatation catheter. A pressure drop is noted from the tip of the dilating catheter as it crosses the stenotic lesion. The balloon then is positioned across the narrowed segment and inflated by means of a pressure pump, with sequentially increasing pressures from three to six atmospheres until a decrease in the gradient across the lesion of at least 30 percent is obtained. Total vessel occlusion lasts approximately 15 to 20 seconds (inflation and deflation time). Repeated dye injection into the vessel confirms the decrease in the degree of obstruction. Heparinization is reversed with protamine and the patients are observed in the CCU for 24 hours. The investigative protocol requires repeat thallium exercise testing at three months and angiography at six months after dilatation. Aspirin and dipyridamole are continued for six months.

Increasing angina, ST segment shifts or other findings suggesting severe ischemia are considered indications for termination of the procedure and immediate bypass surgery is performed. Failures occurred when there was no change in the pressure gradient across the lesion after dilatation or when the dilating catheter could not pass the stenotic lesion.

CASE HISTORY

The case history of one patient will be discussed as it is representative of the group—a 35-year-old male with a threemonth history of angina. Initially his attacks were exercise related but for the past two months he had rest angina. Despite large amounts of propranolol and nitrates the patient had persistent substernal chest pain. His past medical history was unremarkable. The only major risk factor was cigarette smoking (1PPD) for 20 years. Physical examination, laboratory data, and chest x-ray were normal. The electrocardiogram showed non-specific ST-T wave changes. Coronary angiography demonstrated a 90 percent obstruction in the proximal left anterior descending artery (LAD) and normal left ventricular (LV) function (Figure 1). Thallium exercise testing showed a filling defect in the anterior wall that improved during redistribution. At angioplasty a 60mm. gradient was noted across the stenotic lesion. Successful dilatation was performed and he was discharged two days later. At three months followup a thallium exercise test was normal and at six months angiography showed no interval change in the dilated segment (Figure 2). The patient remains asymptomatic.

RESULTS

Successful dilatation was manifested by a decrease in the



Figure 1-90 percent obstruction in proximal LAD



Figure 2—Repeat angiogram six months later shows wide patency of dilated segment

pressure gradient across the stenosis, a reduction in the narrowing by 40 percent or more on angiography and abolishment of symptoms. PTCA was attempted in ten patients. It was successful in seven. In two patients we were unable to traverse the lesion. This was due to subtotal eccentric obstruction in one patient and vessel tortuosity in the other patient. The first patient underwent single-vessel aortocoronary bypass following the PTCA attempt; the other patient awaits elective surgery. A third patient had an uneventful dilatation but experienced chest pain several hours later. Electrocardiogram and cardiac enzymes subsequently showed the presence of an anteroseptal infarction.

Surgery was not performed on this patient and he recovered uneventfully. Thallium exercise testing at three months after the PTCA showed a fixed defect in the anterior wall. The patient remains asymptomatic. There were no deaths or life-threatening arrhythmias in any patients.

DISCUSSION

Dotter and Judkins first applied the technique of dilating peripheral vessels in 1964. Grüntzig modified the procedure by using a distensible balloon-tipped catheter. At first experimental dilatations were done on cadavers and in animals. This work demonstrated that coronary arteries

^bJudkins MP: Selective coronary arteriography, part I: A percutaneous technique. *Radiol* 89:815, 1967.

could be entered and lesions successfully dilated without deleterious consequences.

Utilizing pressures not exceeding six atmospheres, coronary dilatation can be achieved if the lesion is noncalcified and not fibrotic. When intraballoon pressure exceeds six atmospheres, rupture of the artery or displacement of atheromatous material into the arterial wall can occur. Further experimentation in the animal model demonstrated that angioplasty resulted in a "controlled injury" pattern.7 When the balloon is inflated there is compression of the lesion into the arterial wall as well as dissection of the lesion to the media of the arterial wall. Microscopically one sees superficial disruption or splitting of the fibrotic material overlying the atheromatous plaque. This phenomenon accounts for the "shaggy" angiographic appearance postangioplasty. There is immediate platelet deposition in this injured area but it is minimized by maintenance of intracoronary flow. (The role of antiplatelet agents in angioplasty is related to this event.) Remodeling or "healing" of the dilated stenosis then occurs over a period of weeks. The mechanism of the "healing process" is unclear but it probably is related to persistent coronary blood flow. There was an initial fear that the dilatation would lead to embolization in the distal coronary tree. This however has never been seen experimentally or clinically as long as proper dilatation technique has been employed.

It is probable that five to 15 percent of patients now having bypass surgery would benefit from this procedure. The ideal candidates are patients with a short history of angina with angiographic evidence of significant single vessel disease. The lesions should be easily accessible, discrete, concentric and noncalcified. The ventricular function should be uncompromised and angina poorly controlled by medical therapy. All patients must be candidates for coronary bypass surgery and must have accepted surgery as alternative therapy. Lesions that should be avoided at present are those involving the left main coronary artery, since there appears to be a greater incidence of coronary artery spasm with possibly fatal consequences. Recently however, encouraging results have been reported in selected cases of left main coronary artery disease.8 Dilatation also has been performed successfully in venous grafts to the coronary arteries, yet there appears to be a higher incidence of restenosis of the dilated graft. The complications of the procedure are a result of dissection of the arterial wall and intramural hematoma in the coronary artery leading to total occlusion of the vessel. This can lead to infarction which may be fatal and emphasizes the need for operating room standby for emergency coronary bypass surgery. Much less common and less appreciated is the occurrence of late (6 to 48 hours after dilatation) closure, as it occurred in one patient of our series.

At Newark Beth Israel Medical Center, in this first group of ten patients there was a success rate of 70 percent. There were three unsuccessful dilatations with one uncomplicated infarction. No patients died and all patients are asymptomatic at the present time, either after PTCA or aortocoronary bypass surgery. These results are comparable to these reported by other investigators. 9,10 The longest followup at our institution is 11 months. A recent study by Grüntzig et al. 11 shows that 83 percent of the patients remain improved at one year followup; the overall restenosis rate being from 12 to 20 percent, usually within six months. Four out of five recurrences may be redilated. The morbidity, i.e., emergency surgery rate, averages approximately five percent. "It is probable that five to 15 percent of patients now having bypass surgery would benefit from this procedure."

The mortality in single-vessel angioplasty is less than one percent and thus comparable to that for coronary bypass surgery in the same type of patient.

Since immediate surgical back-up is imperative, the procedure must be restricted to centers performing coronary bypass surgery. It is important to monitor these patients in the CCU closely for 12 to 24 hours postdilatation since vessel occlusion can occur not only during the procedure but also several hours after angioplasty. As we become more familiar with the technique, we anticipate expansion of the present rather narrow indications for this promising mode of treatment of coronary artery disease to include PTCA of multivessel disease, dilatation in combination with aortocoronary bypass surgery and even combined with streptokinase intracoronary infusion during acute occlusion of a coronary artery.

SUMMARY

Percutaneous transluminal coronary angioplasty is discussed as an alternative to aortocoronary bypass surgery in selected patients. Initial experience, results and complications with this procedure at Newark Beth Israel Medical Center were presented and conclusions drawn regarding the efficacy of the procedure as well as possible future indications.

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DESCRIPTION: Methyltestosterone is 17*B*-Hydroxy-17-Methylandrost-4-en-3-one. ACTIONS: Methyltestosterone is an oil soluble androgenic hormone INDICATIONS: In the male: 1. Eurochoedium (INDICATIONS: In the male: 1. Eurochoedium and the male and the mal

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Medical Management of Occlusive Arterial Disease

HEINZ I. LIPPMANN, M.D., Teaneck*

The medical management of occlusive arterial disease as a preventive and therapeutic modality is reviewed. Reconstructive surgery or transcutaneous angioplasty can salvage an ischemic limb in danger of loss. In almost all other contingencies, medical therapy is the treatment of choice which offers a favorable long-term, risk/benefit ratio.

hronic arteriosclerosis obliterans (ASO) in the lower extremities, which correlates to a high degree with coronary artery disease, is a benign condition since collaterals open while the disease progresses. Resting blood flow as a rule continues to be adequate while vascular reserve lags behind. The most feared outcome of ASO is, of course, loss of limb; unfortunately, the number of major leg amputations still is unacceptably high. Because of spectacular developments of angioplastic procedures¹⁻⁴ and surgical revascularization techniques^{3,6} that have salvaged endangered ischemic limbs, medical management of chronic ASO is suffering unmerited neglect.

OLD MISCONCEPTIONS

Old misconceptions regarding the natural course of ASO still prevail. They go back to Fontaine who described ASO as a four-stage disease: an asymptomatic stage, intermittent claudication, and the ominous stages of rest pain and necrobiosis (gangrene). In the past 25 years, we have learned that the final two stages which presage loss of limb are complications rather than manifestations of ASO, that rest pain usually is reversible and that chronic ASO does not result in gangrene without extrinsic events that cause injury or infection, both of which are preventable and often manageable.8

REST PAIN

The threatening rest pain cited by Fontaine arises when a

normal arterial flow abruptly turns off and no functional collaterals are available. Such an emergency hardly ever occurred in chronic ASO before the advent of reconstructive surgery. After successful bypass surgery for claudication, however, functional collaterals vanish with the establishment of an adequate mainstream. When the bypass closes—in 40 percent of the cases after two to four years in our group of patients—the leg, now severely ischemic, may be in jeopardy since it takes weeks for collaterals to reopen. In recent years we have seen several such cases in whom Fontaine's "rest pain" was the harbinger of disaster.

In ASO, less fearsome kinds of rest pain are more common. Neuropathic rest pain is observed in patients with diabetes, uremia, or nutritional deficiencies. Here, we find dispersion of sensory potentials and slowed nerve conduction even when clinical signs of neuropathy are not too persuasive. Although this pain may be difficult to control it may yield to simple analgesics rather than narcotics. The placebo effect of the B vitamins which most patients we see have received and the apparent benefit of tricyclic anti-depressants suggest that the severe pain is a correlate of mental depression. ¹⁰

^{*}Read before the Section of Physical Medicine, 215th Annual Meeting of the Medical Society of New Jersey, May 18, 1981, Secaucus. Dr. Lippmann is chief of peripheral vascular clinic at the Bronx Municipal Hospital Center and professor emeritus of rehabilitation medicine at the Albert Einstein College of Medicine in New York. Correspondence may be addressed to him at 597 Sunderland Road, Teaneck, NJ 07666.

The most common type of rest pain is due to tissue ischemia caused by edema of dependency and usually aggravated by a weak or idle muscle pump. Edema may be reversed by leg elevation but this maneuver is tolerated badly since it interferes with blood flow. As a compromise, an eight-inch block under the head of the bed often allows the patient to sleep with a minimum of edema and tolerable pain. In some cases an Unna's boot may bring the edema down and the ischemic pain under control. Rest pain of dependency is persistent and may be nasty, but it usually abates in a few months and, in our experience it never has necessitated an amputation.

BLOOD FLOW NEEDS

An ischemic limb is not in danger as long as the cutaneous demands for blood can be met by collateral flow. Normal skin at moderate ambient temperatures can get by with 0.8 ml of blood/100g of skin/minute. Thus, perfusion with 60 ml of blood/leg/minute suffices for an average-sized individual; this amount is available in the presence of advanced ASO. Minimum demands of the skin for blood rise to 11 ml/100g/min upon local heating to 104°F. Any break, fissure, or opening in the skin will cause inflammation which sharply increases the need for blood more than 50-fold as compared to resting flow needs. If these minimum demands are not met, necrosis or gangrene follows.

By comparison, working muscle requires 30 to 50 ml/100g/min of arterial blood; this is a 10 to 15-fold increase over resting needs, which are 3 ml/100g/min. In the individual who stops walking because of claudication, resting flows are reestablished after a few minutes and no damage is done. Increased cutaneous demands for blood last longer, therefore, burns, sensitivity reactions, or sundry causes of inflammation are more dangerous. The preventive value and need for good skin habits aimed at minimizing cutaneous demands has been borne out by experience.

MEDICAL MANAGEMENT

A good skin and foot care program includes daily washing with lukewarm water and soap, application of an absorbable fat, and education of patients to examine the feet, to wear proper shoes, and to avoid injury to the feet. Nothing warmer than 92°F should be applied to the skin and the feet should not be soaked.

In an old age home and infirmary with 530 residents (average age 86 years), in which I serve, 15 major leg amputations were done before a footcare clinic was developed 18 years ago. Since then, none of those individuals who participated in the program has lost a leg. Foot care is a continual, never-ending task. Some patients who were hospitalized after discontinuance of the footcare program promptly developed gangrene and required amputation.¹¹

In the medical management of the patient with an ischemic limb, in addition to cardiac, metabolic, and general care, two therapeutic options, which may be taken up separately or in combination, are available. One can try to reduce tissue demands for blood by good foot care or one can attempt to enhance blood flow. Of the two, the former saves more ischemic limbs than the latter.

Medical means to augment arterial tissue perfusion are of limited value. Walking up to but not beyond the moment of claudication stimulates collateral formation. Oral vasodilators increase blood flow in a normal leg by temporarily opening collaterals. In advanced ischemia, where most or all blood is delivered through collaterals, oral

"In advanced ischemia, where most or all blood is delivered through collaterals, oral vasodilators, regardless of generic or proprietry name, are of no clinical use."

vasodilators, regardless of generic or proprietary name, are of no clinical use. Intraarterially-administered dilators effectively raise local tissue perfusion even in the presence of advanced ASO.¹² Such therapy is cumbersome and necessitates hospitalization, but it may save a limb when no other means of enhancing blood flow is available. Reduction of blood viscosity by fibrinogen proteolysis with the purified Malayan Pit Viper venom was reported by European clinicians as an efficacious means to increase blood flow.¹³

While there is general agreement that revascularization is indicated when an ischemic leg is in immediate danger of loss, physicians and surgeons often differ in what represents an "immediate danger of loss." In practice, such controversy usually centers around the prognostic meaning of severe claudication, rest pain, the predictive significance of drops in peripheral blood pressures, and trophic alterations in feet and legs.

Intermittent claudication (I.C.) is compatible with practically any occupation, including the letter carrier. It interferes with running but not with walking; it permits dancing or golf within limits. Whether it is disabling depends less on walking tolerance than on the first encounter of patient and physician. If the patient is told that a surgical reconstruction can "cure" I.C., he will feel incapacitated when he experiences pain while walking until he has surgery. If, however, he learns the whole truth—that even with a successful bypass his chances to lose the limb after a few years will go up, that good foot care may preserve his leg, and that he will be able to walk any distance, albeit with the stops imposed by his disease—he will accept his handicap as a nuisance and will be able to live with claudication.

We conducted a prospective study from 1951 through 1967 at the Amalgamated Clothing Workers Union Health Center in New York. Every member presenting with occlusive arterial disease, 506 ambulatory individuals in all, was followed for a mean observation time of 6.3±4.6 years. Apart from general care, "treatment" for the vascular condition consisted of a strict footcare program only. This included patient education, regular visits to the peripheral vascular clinic, to a podiatric clinic, and to an additional nurse-conducted foot clinic for the diabetics. By the end of the study period diabetic patients comprised about half of the group. Followup was complete for all probands; cause of death was ascertained for those expired. At the end of the period, two patients had lost one leg and one had lost both legs; all three resulted from a major injury to the foot or leg. None of those dead (from heart disease, cancer, stroke, or other causes) had a leg amputation.14 By contrast, in the past two years we have seen a number of patients who had one or both legs amputated six months to four years after a successful bypass operation for intermittent claudication

DROP IN PERIPHERAL PRESSURES

Normal systolic pressure in the foot of a supine person exceeds brachial artery pressure by 10 to 20 mm Hg. A pressure drop ensues in any proximal narrowing or obstruction of the artery lumen. It can be visualized by pallor on elevation and can be measured accurately using ultrasonic doppler equipment. The test becomes sensitive immediately after exercise. The method is not applicable when the pressure cuff is placed over a calcified segment involved with Mönckeberg's arteriosclerosis; this frequently is a problem in diabetics. ¹⁵ Reproducible data on this problem can be obtained, but their clinical interpretation is debatable.

A widely held opinion which I share states that medical treatment is justified as long as the systolic pressure in one pedal artery exceeds 50 percent of that obtained in a brachial artery. On occasion, I have observed patients with good demarcation of gangrenous lesions and healing in whom the systolic pressure in the one remaining artery was only 40 mm Hg initially, a value which appeared dangerously near to the arterial closing pressure. Holstein found that surgical revascularization is needed when the digital arterial pressure in the big toe falls below 20 mm Hg.¹⁶ His reasoning is persuasive but his technique requires small digital cuffs and other refinements which are not available to most physicians.

TROPHIC LESIONS

Trophic lesions include phlegmons, abscesses, osteomyelitis, ulcerations, and gangrene. Phlegmons and abscesses, regardless of size or site, require surgical drainage especially when the arterial circulation is poor. Local osteomyelitis, especially in digital phalanges, often responds to medical treatment, which results in extrusion of sequesters and digital shortening. Bacterial invasion usually originates in a nearby skin lesion. An infected sinus often can be visualized by a sinogram and entered via a small catheter through which a slow drip with Elase® and a local antibiotic may expedite cleaning and healing.¹¹ In a gaping purulent joint, collagenase may help.

A case in point is that of an 82-year-old diabetic woman with bilateral iliac artery occlusion and a painful gangrenous ulcer over a bunion penetrating into the first metatarsal phalangeal joint of the right foot; she also had lymphangiitis, fever, and poor general health. Culture of the infected joint grew a *Proteus mirabilis*. The patient refused a proposed two-stage, below-knee amputation. The use of collagenase ointment resulted in control of the inflammation after a few days; the ulcer healed in three and a half months with extrusion of sequesters. The patient was able to walk for the next eight years until she died at age 90. Similar experiences since then suggest that inadequate blood supply may become just adequate when peripheral inflammation subsides.

Protruding phalanges with kissing interdigital ulcers often develop cellulitis extending into the foot when the toes are not kept separated. If a patient with that problem can be kept ambulating without edema or further spread, long-waiting patience often will pay off with final healing. In such patients the only reasonable early alternative would have been a below-knee amputation since the ablation of one toe or a transmetatarsal amputation would have been futile.

Tarsal osteomyelitis seen in the diabetic patient with Charcot foot (deformity by diabetic neuroarthropathy) may require a long patellar tendon-bearing brace with a shoe attached. In chronic osteomyelitis, a major amputation may be necessitated to avoid amyloidosis.

Any open skin lesion in an ischemic leg leads to a struggle for control of infection and a long period of morbidity. Ulcerations usually have multiple causes that are extraneous to ASO or diabetes, viz., bruises, friction, burns, poor pedicure technique, injury from wheelchairs or from excessive weight-bearing due to obesity, chronic venous insufficiency, or subcutaneous ossification. The sheer number of possible contributing causes makes every case unique and mandates a search for the immediate pathogenesis. Almost every skin ulcer harbors bacteria but contamination must be distinguished from infection. With cellulitis or lymphangiitis, antibiotics are required systemically, while contamination usually is controlled by good granulation tissue. We shun local antibiotics because cutaneous sensitivity reactions may strain vascular reserve in an ischemic limb.

Local application of Betadine® has been helpful but an occasional patient's skin is sensitive to it. Debrisan®, a hygroscopic, high-molecular dextran powder, is useful in copiously draining ulcers; for dry sloughing or necrotic tissue-covered ulcers, collagenase ointment combined with mechanical debridement is preferred. Edema at times can be managed with Unna's boots even in the presence of advanced ischemia; the latter may improve with control of edema.

The "trophic" plantar ulcer of a diabetic requires relief from weight bearing; the ulcer edges should be trimmed to pink epithelium, a procedure which is done in the office. Healing is the rule in the patient who continues to ambulate in a properly designed shoe. Occasionally no shoe affords adequate weight bearing redistribution; the ulcer then may heal under a straight plaster cast applied directly over the ulcer as described by Brand.

Gangrene carries an uncertain prognosis, since a lesion of the size of one petechia can spread with resulting loss of limb while a massively gangrenous forefoot can demarcate and heal at midfoot level. One should wait for separation of necrotic tissue which may go neatly through bone, muscle, and soft tissue, unless toxicity or spreading necrosis forces surgical intervention. This strategy commonly is successful with single digits which then can be removed as an outpatient procedure. If a lesion involves the foot beyond the digit base, the confines of demarcation are more difficult to outline; continuous followup and close cooperation with a wellinformed patient are then essential. Therapeutic timing is always necessary. While the need for revascularization must not be missed, premature meddling with a healing ulcer or debridement of gangrene in early stages of separation is equally hazardous. In practice, more examples are encountered in which complications are generated because of the latter than the former.

Gangrene of the heel in bedridden patients is prevented by proper foot protection in all patients with an ischemic limb. Body restraints should be discarded as they shift position. Span-Aids[®], Spanco[®] Protectors, Foot Cradles^c or other devices are useful.²⁰

CONCLUDING COMMENTS

Good foot care habits protect an ischemic limb unless injury or infection threaten its survival, but many people who clean their hands and teeth daily neglect their feet. Patients should be taught the preventive value, technique, and "cost

^aSpan-Aids: Span America, Inc., Box 5231, Greenville, SC 29606. ^bSpanco Heel Protector: Fred Sammon, Box 32, Brookfield, Ill 60513.

^cFood Cradle: Medical Plastic Laboratories, Gatesville, TX 75828.

effectiveness" of good foot care. If foot care were a universal habit, the number of amputations of ischemic legs would dwindle fast.

When trophic lesions prompt a patient with an ischemic limb to consult a physician, some general principles emerge: (a) Risks are weighed against benefits to the whole patient rather than for his legs. There is no merit in drawing out medical treatment for months in a bedridden elderly patient when a below-knee amputation could have him walk on a prosthesis in weeks. Surgical revascularization in an ambulatory patient with a trophic lesion which is likely to heal in a few months, with or without loss of a toe, does not make sense.

(b) A prime goal of medical or surgical therapy should be the safest, fastest, and most efficient way to preserve or to reestablish the patient's independence in moving about, be it on his own legs, on a prosthesis or even in a wheelchair.

(c) Variables like the patient's general medical condition, his psychology, the family reaction, financial considerations, and other factors affect our therapeutic judgments. Medical management always should be included in the choice of alternatives when it comes to treating a patient with an ischemic limb.

SUMMARY

With the wide acceptance of modern revascularization procedures to salvage ischemic limbs, nonsurgical management of patients with chronic occlusive arterial disease (OAD) in the extremities has been neglected. Medical management includes preventive foot care based on the rationale that a normal skin's modest demands for blood amply are covered even in the presence of advanced OAD.

If the patient with skin breaks or trophic lesions can be followed closely, medical methods are the first and often the definitive line of defense, in diabetics and nondiabetics alike. This is true for the patient with rest pain, ulcerations, intermittent claudication, and with most cases of osteomyelitis or demarcating gangrenous lesions. Apart from the obvious need for surgical intervention in the treatment of abscesses or phlegmons, surgical revascularization or transcutaneous angioplastic procedures are the accepted procedures to salvage an ischemic limb in immediate danger of loss. For most less stringent indications, medical treatment offers the lowest long-term, risk/benefit ratio. An outline of

the indications and limitations of medical management is made.

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STATE OF THE ART

Relationship of Hypercholesterolemia to Coronary Heart Disease

MARVIN L. BIERENBAUM, M.D., Montclair*

Current data strongly suggest that dietary intervention can lower elevated serum cholesterol and triglyceride levels and normalize platelet hyperaggregability. This safe and feasible approach should be recommended highly to all patients at significant risk of developing our number one malady, coronary heart disease.

o area of research in the past 20 years has been more active nor accumulated more data than the epidemiology of coronary heart disease. Particular attention has been paid to the role of blood lipids in this problem, since these parameters lend themselves to correction by both drugs and dietary measures, and since numerous studies strongly suggest that persons with lower levels have less coronary heart disease than those with higher levels. It appears that the benefit to be derived from lowering blood lipids by drug therapy remains unsettled at best. This is particularly true since the report of a United States cooperative postcoronary drug study utilizing estrogens, clofibrate and nicotinic acid showed only borderline improvement in recurrence rates for the last drug with no improvement in recurrence or mortality rates for the first two.1 Additionally, the WHO prevention trial, aimed at lowering serum cholesterol levels with clofibrate over a 9.6-year period of observation, showed 25 percent more deaths in the treated group than in the comparable high serum cholesterol control group.² Mortality from all causes was higher in the treated group with the distribution being generally equal for coronary heart disease, stroke and cancer. No relationship could be shown between the excess mortality and cholesterol reduction or the length of time on clofibrate, but a long-term toxic effect of clofibrate remains a strong possibility.

DIETARY EFFECTS ON BLOOD LIPIDS

The matter of dietary management of blood lipids is somewhat different, however. There has been a greater and longer period of data collection of lipid changes, associated morbidity and mortality rates, and toxic side effects of special diets. Our 10-year study of younger men with proved coronary heart disease showed, after weight reduction, that a 28 percent fat diet, containing less than 9 percent of calories as saturated fat and less than 400 mg. of exogenous cholesterol daily, was one method of lowering blood lipids and significantly improving morbidity and mortality rates from subsequent coronary episodes.³ Both serum cholesterol and triglycerides were lowered in this effort, the latter probably secondary to weight reduction. The greatest benefit was derived by the younger age group, under 45, which suggested that necessary dietary change should be made early in life.

Studies by Miettenen and associates, Leren and Dayton and associates revealed beneficial cardiovascular effects by improving blood lipids through the addition of considerable amounts of polyunsaturated fat to the usual diet; this was both palatable and readily acceptable to the volunteers. One

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"Elevated amounts of cholesterol in the LDL fraction have been considered to be atherogenic and in familial type II hyperlipidemia often have been the model for premature coronary heart disease."

fact emerged from the Dayton and Pearce study that was somewhat alarming and required careful evaluation. Despite improvement in cardiovascular death rates, the total mortality rate in the older cohorts was similar, but the noncardiovascular deaths in the patients on polyunsaturated fat showed an excess mortality from carcinoma. A careful review of the cancer incidence of a number of other field trials using highly unsaturated diets by Ederer and associates, which did not show an increase in the incidence of carcinoma, allayed considerable anxiety in this regard.

FREDRICKSON CLASSIFICATION

These earlier studies primarily measured serum cholesterol response to dietary intervention and, after the classification of the various lipid fractions and abnormalities by Frederickson, subsequent efforts generally have included measurement of these parameters also.8 Five main types of lipoproteins have been classified according to their size and density: (1) the exogenous and endogenous triglyceride transporting chylomicrons, (2) the very low density lipoproteins (VLDL), (3) the VLDL remnants—the intermediate density lipoproteins (ILDL), (4) the major cholesterol transporting low density lipoproteins (LDL) and (5) the postulated tissue cholesterol removing high density lipoproteins (HDL). Elevated amounts of cholesterol in the LDL fraction have been considered to be atherogenic and in familial type II hyperlipidemia often have been the model for premature coronary heart disease.

HDL CHOLESTEROL

Increasing attention recently has been focused on HDL cholesterol following reports of low levels in postmyocardial infarction patients,9 negative relationship to coronary heart disease incidence¹⁰ and increased longevity in families with high HDL levels.¹¹ This also appears to be associated with the protective action that modest intake of alcohol plays in coronary heart disease.¹² An explanation offered for these observed benefits is that HDL may aid in the removal of cholesterol from the tissue including that of the atheromatous lesion.¹³

A larger number of intervention trials have been established and are in progress utilizing diet, exercise, surgery and drug therapy or some combination thereof to see if lowering plasma cholesterol and LDL cholesterol and raising HDL cholesterol will reverse established coronary disease or prevent its occurrence in high-risk individuals. Early reports by Buchwald, ¹⁴ Brandt, ¹⁵ Kuo, ^{16,17} of improvement are highly promising and lend much encouragement to continuation of the studies. Simultaneous efforts suppressing hypertriglyceridemia also have been shown to contribute toward regression of early femoral arterial lesions and are to be encouraged. ¹⁸

"Dietary intervention using polyunsaturated fatty acids has, in addition to serum cholesterol lowering abilities, pronounced and significant effects on reducing platelet aggregation in man."

POLYUNSATURATED FATTY ACIDS

Dietary intervention using polyunsaturated fatty acids, in addition to serum cholesterol lowering abilities, has pronounced and significant effects on reducing platelet aggregation in man.¹⁹ Indeed, this may be one of the major factors in the beneficial results reported in the early Miettenen and Leren studies.^{4.5} Our work with type II children using the *in vivo* Filtragometer technique and *in vitro* studies on adult type II patients has shown an associated increased platelet aggregability possibly because of increased thromboxane production.²⁰ Both abnormalities are at least in part amenable to dietary and drug intervention and presumably this modification would be beneficial to any individuals so afflicted.

Currently it appears that the accumulating data point more and more toward a conclusion that it is better to have a lower LDL cholesterol level than higher, higher HDL cholesterol level than lower and lower triglyceride level than higher. Dietary intervention containing lower calories, moderate fat and particularly using supplements of polyunsaturated fatty acids is one way of doing this while at the same time normalizing frequently associated platelet hyperaggregability. All future efforts along these lines at least should include such diets in their intervention schema since to date this appears to be the most predictable and safest avenue of approach.

SUMMARY

The large amount of data that has accumulated in the past 20 years of studying the epidemiology of coronary heart disease points strongly toward a beneficial preventive effect of lowering serum cholesterol with dietary measures. This dietary approach also may be used effectively to lower serum triglycerides and normalize platelet hyperaggregability, both risk factors for coronary heart disease. The large number of observations confirming these conclusions became more orderly after classification of lipid abnormalities by Fredrickson into five sub types. Results using drug intervention have been erratic and, to this point, of questionable benefit, but perhaps some panacea such as the prostaglandins may be on the horizon.

At this time it is proper to conclude that it is better to have a lower LDL cholesterol level than higher, higher HDL cholesterol level than lower and lower triglyceride level than higher. Dietary intervention containing lower calories, moderate fat and supplements of polyunsaturated fatty acids is one way of doing this while at the same time normalizing frequently associated platelet hyperaggregability.

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CASE REPORTS

Intussusception Due to Intestinal Tubes

TZU-CHI HSU, M.D., SAMUEL DIENER, M.D., Newark*

Intussusception is a serious complication of the use of long intestinal tubes. Three cases were reported in this series. Early detection with appropriate management is essential to minimize the damaging effects of intussusception. Diminishing the chances of excessive telescoping of the small intestine is paramount in the prevention of this complication.

ntussusception complicating the insertion of long tubes as a cause of mechanical bowel obstruction was first reported in 1945. Sower first reported a collected series in 1965 which included 15 reported cases and his own four cases. Ginzburg subsequently reported eight cases and Dr. Salvati added four cases. Recently, Sarr et al. also reported that the use of long tubes was highly suspect as the cause of intussusception in five patients. In the past three years, we have treated three similar cases at St. Barnabas Medical Center. Our main indication for long intestinal tube insertion is pre or postoperative non-strangulated, mechanical bowel obstruction.

We seldom use a long tube prophylactively in colon surgery as Salvati did in his own practice. We occasionally use them to combat recurrent and partial small-bowel obstruction postoperatively. Among the long tubes we currently are using are Cantor, Baker, and Dennis tubes, with the Cantor tube being used most frequently. All of our intussusceptions occurred after Cantor tube insertions.

Although we have not experienced any intussusception with the other types of long tubes, this possibility has not been overlooked.

CASE REPORTS

Case 1—A 34-year-old female was admitted to St. Barnabas Medical Center because of small-bowel obstruction. An upper gastrointestinal series revealed dilated small

intestinal loops. She underwent exploratory laparotomy, resection of a small intestinal inflammatory mass and appendectomy. A Cantor tube had been inserted the night before surgery and during surgery was advanced to just proximal to the anastomosis. The patient had intermittent vomiting postoperatively and was treated with nasogastric tube decompression. On the third postoperative day, the patient started to have upper gastrointestinal bleeding. In the early morning of the fourth postoperative day, the patient exhibited tachycardia (160/min) and hypotension (systolic blood pressure decreased to 80 mmHg). After receiving two units of blood, the patient was brought to the operating room with the provisional diagnosis of internal bleeding. An antegrade, high jejunojejunal intussusception was found about two feet distal to the ligament of Treitz. As the intussuscepted intestine appeared to be gangrenous, resection of the intussuscepted jejunum with jejunojejunostomy was performed. The Cantor tube was removed and a Baker tube was inserted which was advanced to the level of ileocecal junction. The subsequent postoperative course was smooth and the patient was discharged ten days later.

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Case 2-A 55-year-old male was admitted because of anal bleeding. After evaluation a carcinoma of the rectum was diagnosed. An elective abdomino-perineal resection was performed. The postoperative course was complicated with perineal wound disruption and intermittent bowel obstruction. A Cantor tube was inserted a week after surgery. Because of the persistence of small bowel obstruction, the patient underwent exploratory laparotomy on the tenth postoperative day. The patient was found to have adhesions binding a segment of terminal ileum in the pelvis, with a resulting obstruction. The adhesions were lysed. Hyperalimentation was started and Cantor tube decompression was continued. The patient did well initially but experienced nausea, vomiting and abdominal distension after the long tube and nasogastric tube were removed. Upper gastrointestinal series showed a high jejunal obstruction. Retrograde intussusception was suspected and a Cantor tube was reinserted. This passed through the area of obstruction but did not relieve the intestinal obstruction. Three weeks after the second operation, the patient again was explored and the antegrade jejunojejunal intussusception, two feet distal to the ligament of Treitz, was reduced. The Cantor tube was removed and a nasogastric tube was inserted. This time he did well postoperatively and was discharged ten days later.

Case 3—A 65-year-old male with diabetes had right lower quadrant abdominal pain for ten days. White blood count was 23,000 per cubic milliliter. Barium enema and ultrasound studies suggested a right lower abdominal abscess, possibly an appendiceal abscess. Incision and drainage were performed extraperitoneally. He then developed a partial small-bowel obstruction postoperatively and was treated with Cantor tube decompression, hyperalimentation and large doses of antibiotics. Difficulties were encountered in passing the Cantor tube into the upper jejunum. Three weeks later, he had bile-stained vomiting and x-rays revealed a distended stomach. A nasogastric tube was inserted and the symptoms were relieved. Two weeks later exploratory laparotomy was performed. Intussusception of the midjejunum, 1.5 feet disal to the Treitz ligament, was found. Multiple adhesions also were noted. A lysis of adhesions, resection of jejunum with jejunojejunostomy and a right hemicolectomy were performed. Pathology confirmed the diagnosis of residual appendicitis; no maligancy was present in the cecum. The Cantor tube was replaced with a nasogatric tube. He had prolonged postoperative ileus but eventually recovered.

DISCUSSION

Intussusception caused by long intestinal tubes has been reported in either antegrade or retrograde fashion. We did not see retrograde intussusception in our series. It was thought to be rare when Sower reported 19 collected series. With the increased usage of long tubes in the past few years, it is not a "rare entity" anymore. We agree with Ginzburg that the tube should be left in as short a time as possible. Due to the possible complications of long-tube insertion, we do not feel that routine prophylactic insertion is justified. We also strongly believe that double lumen tubes should be used more often although the Cantor tube probably offers more effective drainage. Air-inflated Baker tubes, or similar tubes, easily could be advanced during surgery to the desired level. After smoothing out the surface of the intestine, the balloon of the tube could be deflated.

Although it has not been encountered in the previous series, we did have a patient who presented with shock and upper gastrointestinal bleeding which necessitated blood transfusions. During the exploration, gangrenous bowel was found which was thought to be the source of bleeding.

Although there was one case in the literature which was treated successfully without surgery, we believe that all patients suspected of having intussusception should be explored as soon as possible. Our second patient was suspected of having retrograde intussusception and was treated with a Cantor tube. In spite of passage of a long tube beyond the obstructive point, the intussusception was not released. Early exploration will increase the chance of reduction without resection, decrease the possibility of gangrenous bowel with subsequent development of perforation, and so diminish the overall morbidity and mortality.

Since intussusception causes incomplete obstruction, the patient will still pass flatus and fluid. In the presence of long tube decompression, signs of proximal bowel obstruction, as in our third case, should alert the physician of possible intussusception. Rather than waiting for frank gangrene or irreducible intussusception to occur, the paitent should be explored. As Ginzburg suggested, exploration of the whole abdomen is essential for patients with long intestinal tubes.3 In the case of high jejunal intussusception, where the mass may lie behind the rib cage, exploration is essential in treating the patient with a long tube in place, especially in the patient with generalized distended intestine. Missing an intussusception while treating another cause of obstruction, (e.g., adhesion bands) may result in a tragedy. Reduction of intussusception is ideal, but not always possible. Resection of intestine with preservation of blood supply to the remaining bowel is crucial since the mesentery of the intusscepted bowel also passed into the intussuscipiens and therefore lies close to the base of mesentery.

We stress that the tube should not be taped to the nose and an adequate length of "lazy loop" of tube should be allowed in order to prevent excessive telescoping of the intestines. We also believe that excessive suction may be a factor contributing to the intussusception. Proximal intestine may be collapsed by strong suction facilitating a telescoping action of the intestine caused by the rapid passage of the bag. We recommend low gentle suction for the patient with obstruction and gravity drainage for those without obstruction.

SUMMARY

Three cases of intussusception, probably caused by long intestinal tube insertion, are added to the previously reported series. We stress the importance of early detection, thorough exploration of the abdominal cavity during surgery for intestinal obstruction, the importance of not anchoring the tube and the use of gentle suction for decompression. An awareness of the problem with a high index of suspicion is essential.

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Crisis in Sickle Cell Trait: A Case of Probable Trait with Catastrophic Neurologic Presentation

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A healthy young black man with a hemoglobinopathy most consistent with sickle cell trait presented with unexplained coma following an acute episode of back pain and fever. In the absence of supportive evidence for central nervous system infection or other less obscure explanation, the diagnosis of acute hemorrhagic encephalitis was made. Postmortem examination demonstrated a constellation of features virtually diagnostic of sickle cell crisis.

pproximately eight percent of black Americans are heterozygous for hemoglobin S.^{1,2} Such persons usually have minimal, if any, clinical problems relevant to the gene unless combined with another hemoglobinopathy. Though unusual, pathologic sickling, precipitated by hypoxia or other stress, has been known to occur in isolated sickle cell trait.^{1,6} Infarcts in various organs as a result of sickling have been described in heterozygotes though these also are not common and require an appropriate precipitating factor.^{1,6}

We will describe a case of sickle cell crisis occurring in a patient with probable isolated sickle cell trait who presented with bone pain, a febrile episode, and acute neurological signs. Lack of clinical recognition of the sickling episode undoubtedly was due to the lack of emphasis which its possibility receives.

CASE REPORT

A 27-year-old previously healthy black male was admitted in a comatose state with a fever of 104°F. The day prior to admission he complained of backache and leg weakness following an altercation with a friend; he became confused and began to exhibit bizarre behavior. The family denied recent head trauma or upper respiratory tract infection. The patient's past medical history included bronchial asthma and rheumatic fever. The family history was negative.

Physical examination revealed a comatose patient with

tachycardia but no heart murmur. His lungs were clear; the abdomen was soft, without tenderness, guarding or organomegaly. Painful stimuli caused decerebrate posturing. The deep tendon reflexes were symmetrical and hyperactive; Babinski was positive bilaterally. The pupils were small and sluggishly reactive to light. No papilledma was noted.

A spinal tap showed annthocromia with 1,110 white blood cells and 7,910 red blood cells per cubic millimeter. The CSF protein was 103 mg/dl, glucose 85 mg/dl, and chloride 122 mEq/liter. A CSF culture was sterile.

He was treated with steroids and ampicillin and two days later was transferred to another hospital. Physical examination revealed a temperature of 101°F, blood pressure of 120/70, and pulse rate of 120/minute. Bilateral conjunctival hemorrhages were present. Cardiopulmonary and abdominal examinations were unchanged. Skull and chest x-rays were unremarkable. On admission a hemoglobin was 8.4 gm/dl, hematocrit 26% and white blood count was 14,000/microliter with 76% segmented neutrophiles, 8% bands, 2% metamyelocytes, 1% lymphocytes, and 3% monocytes. Platelets were 48,000 per microliter. The red blood count was 3,240,000 per microliter, and there were 28 nucleated red blood cells per 100 white blood cells. The red cell indices

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Figure 1—Coronal section of gross brain showing multiple small thromboses in both the gray and white matter.

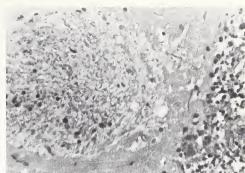
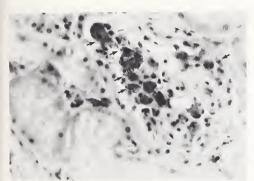
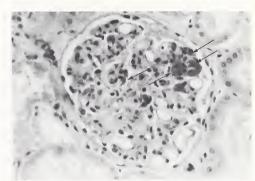


Figure 2—Extravasated sickled red cells in cerebellar microinfarct (H&E x 400).





Figures 3 and 4—Glomeruli showing capillaries clogged with sickled red cells (H&E x 400, figure 3-short arrows; figure 4-long arrows).

were MCV 79fl (normal 83-101), MCH 25.7pg (normal 27-31), and MCHC 32.4 gm/dl (normal 32-36). Rare targets, macrocytes, microcytes, and echinocytes were observed in the peripheral blood film. A sickle cell preparation was positive; homoglobin electrophoresis showed hemoglobin A1-51.6%, hemoglobin S-43%, hemoglobin A2-5.4% (upper limit of normal = 3.0%. Occult blood was present in the urine. CPK, LDH, SGOT and alkaline phosphatase were markedly elevated.

An electroencephalogram (EEG) indicated severe diffuse cortical dysfunction; computerized tomography (CT) scan indicated cerebral edema. Repeat spinal fluid analysis showed 100 neutrophiles, 36,000 red blood cells, protein of 134 mg/dl, glucose of 100 mg/dl, and chloride of 130 mEq/liter. Arterial pH, on 80% oxygen, was 7.26. Culture was again sterile, and a spinal fluid counterimmunoelectrophoresis was negative for hemophilus streptococcus, pneumococcus, and meningococcus. On the eighth hospital day Serratia marcescens was cultured from two consecutive blood specimens. Gentamicin and metoxin were substituted for the ampicillin. On the ninth hospital day the patient developed circulatory collapse and died.

At autopsy, sizable infarcts were present in the lungs, liver and spleen. The spleen weighed 240 grams and was soft. Petechial hemorrhages were noted on epi and endocardial surfaces, on the gastric mucosa, in the testes, and in the brain where they occurred in the cerebellum, cerebrun, and brain stem in both the white and gray matter (Figures 1, 2). The

myocardium exhibited multiple pale areas. Microscopically both the large infarcts and the petechial hemorrhages were associated with intravascular sickling and sickling of extravasated red cells. Hepatic sinusoids were packed with sickled red cells, and many glomerular capillaries were occluded by small clumps of sickled red cells (Figures 3, 4), while others had fat emboli in their lumena. The pale areas of the heart showed anoxic myocytolysis. A section of lumbar vertebra showed recent and old bone necrosis. While the spleen showed massive acute congestion, no hemosiderosis was present. A postmortem blood culture grew Serratia marcescens.

DISCUSSION

Though pathologic sickling in heterozygotes repeatedly has been demonstrated in association with specific environmental and internal stress factors, and deaths have been described in which the presence of sickle cell trait undoubtedly played the determinative role, unwillingness to accept "increased morbidity in sickle trait" has succeeded in erasing complications related to the single sickle cell gene from our diagnostic armamentarium.

Our patient appears to represent a case of sickle trait for several reasons. He was an athletically built black male who had been asymptomatic until the fatal episode. There was no prior personal or family history of anemia, and no reason to suspect hemolysis. Combined heterozygous hemoglobinopathies characteristically produce some degree of

morbidity in youth. The young man was not of Mediterranean origin. The red cell indices indicated mild microcytosis and hypochromasia; morphology of the circulating red cells was minimally abnormal. Target cells, while occasionally noted, were not a prominent feature of the peripheral smear. The morphology is usually conspicuously abnormal and target cells numerous in a combined hemoglobinopathy such as S-C disease or sickle-thalassemia. The reticulocyte count was not elevated as one would expect in chronic disease of decreased erythrocyte survival. The patient's degree of splenomegaly at autopsy was consistent with congestion and sepsis, and the histology did not speak for chronicity. The sickle cell preparation was positive, and the hemoglobin electrophoresis showed a pattern most consistent with sickle cell trait, with a significant level (43%) of S hemoglobin and mildly elevated A2 (5.4%), without inversion of the A/ratio expected in sickle-B thalassemia and without hemoglobin F. Sickle-α thalassemia should have normal levels of A2. Autopsy findings, including infarcts in several organs associated with packing of sickled red cells in capillaries, hepatic sinusoids packed with sickled cells and extravasated sickled red cells, are those expected when there is extensive antemortem sickling.

Cases similar to ours in terms of previous good health, age and sex of the patient and presentation with massive neurologic involvement, have been reported though uncommonly.^{6,7} A case of sickle cell heterozygote of similar age, sex and good health presenting with pulmonary infarction has been reported;¹ the authors made an analogous plea that consequences of sickling be considered in the differential of perplexing pulmonary symptomatology in AS patients.

The repeated growth of Serratia marcescens from the blood in our case is of considerable interest. Salmonella usually is associated with sickle cell disease and the incidence of osteomyelitis due to this organism in sickle cell disease is much higher than in the general population. Osteomyelitis due to Serratia, which is uncommon in the general population, has been reported in a patient with sickle cell disease.\(^8\) An underlying Serratia osteomyelitis in the present case cannot be ruled out. Perhaps the state of sicklemia in itself, by some unknown mechanism, creates an environment within bony tissue which predisposes to infection with organisms rarely harbored there, whether pathogens or opportunists.

SUMMARY

We have described a case of sickle cell crisis clinically mimicking an acute hemorrhagic encephalitis in a previously healthy patient with apparent sickle cell trait. The crisis occurred in association with Serratia marcescens septicemia. In spite of the infrequency with which such a case, or sickling episode with another presentation, may occur in the heterozygous patient, the possibility that sickling may have a significant role in the evolution of the illness should not be dismissed immediately.

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Brown-Séquard Syndrome and Piebaldism

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A 21-year-old South African black male presented with congenital facial depigmentation, congenital poliosis and a Brown-Séquard syndrome. Cerebrospinal fluid IgG and myelin basic protein were markedly elevated, and no structural abnormalities were found. These suggested a demyelinating disease. Accounts of pigmentary disturbances and neurologic deficits are sporadic, while an association with the Brown-Séquard syndrome is unknown. We speculate that these two uncommon events may be related by an abnormality in neural crest tissues, although their coincidental occurrence cannot be excluded

pinal cord dysfunction which results in ipsilateral loss of proprioception, spastic paresis, exaggerated reflexes and contralateral loss of pain and thermal appreciation with little or no change in tactile discrimination is referred to as the Brown-Séquard syndrome. A host of neoplastic, ischemic, traumatic and demyelinating causes are known. However, none of these causes is known to be associated with pigmentary disturbances. Although pigmentary disturbances are reported to be related to several other neurologic disorders, they are not known to be related to or associated with the Brown-Séquard syndrome.

CASE REPORT

Seven days prior to admission, a 21-year-old South African black male performed various calisthenics and subsequently developed transient neck pain. Four days later, he noticed that while holding a can of cold soda in his left hand, he could not appreciate the temperature difference. He tested the left side of his body and noted that he had loss of cold sensitivity elsewhere. This was associated with altered sensation to painful stimuli and paresthesias in the same area. The next day, he developed weakness in the right arm and leg. These symptoms did not progress or recede and continued until the day of admission. He denied any problem with bowel or bladder control and did not experience any difficulty with sexual function. Review of systems referable to the central nervous system was otherwise unremarkable. There

were no recent immunizations or febrile or infectious diseases.

Family history was negative for pigmentary disorder, neurologic disorders, deafness, thyroid disease, diabetes mellitus and pernicious anemia. The patient had no children.

On physical examination, he demonstrated a congenital white forelock and an area of congenital depigmentation involving the right frontal, infraorbital and zygomatic areas (Figure 1). No other areas of depigmentation were noted. The patient was alert and oriented to time, place and person. Pupils were five mm each and equally reactive to light and accommodation; extraocular movements were normal; there was no nystagmus. Visual fields were intact to confrontation. Both irides were isochromic. On fundoscopy, the optic discs were sharply demarcated and appeared normal; no atrophy was evident. No hemorrhages or exudates were seen. There was no gross hearing loss. The motor examination showed mild weakness in the right upper extremity. There was decreased appreciation of pin-prick, pressure and temperature on the left side of the body up to the level of C5-C6. Position sense was intact. Tests of cerebellar function were normal. Deep tendon reflexes were slightly hyperreflexive on

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Figure—A South African black male with a congenital white forelock and congenital depigmentation, (a) frontal view, (b) profile.

the right as compared to the left. The plantar responses were neutral. The superficial abdominal reflexes were absent bilaterally. Gait and station appeared normal, although the patient subjectively felt that he was limping, favoring the right side. The remainder of the physical examination was within normal limits.

Lumbar puncture revealed a normal opening pressure and crystal clear fluid. CSF glucose was 83 mg/dl; protein 43 mg/dl; three red blood cells and three monocytes/mm.³ IgG was 10 mg/dl; or 23 percent of the total protein (normal less than 12 percent). The myelin basic protein in the CSF was markedly elevated to 28.0 nanograms/ml (normal less than 4 ng/ml). Culture of the CSF showed no growth at 48 hours. CSF and serum VDRL were non-reactive. Skull and cervical spine x-rays were normal. A myelogram, including the cervical and thoracic cord regions, revealed no abnormalities. Computerized axial tomography of the head was normal. Complete blood count, thyroid function tests and blood glucose were all normal and ESR was 4 min./hr. leukocyte antigens (HL-A) demonstrated A-2, A-10, B(blank); B7-negative.¹

The patient was given dexamethasone four mg every six hours orally. After four days of therapy, he experienced an improvement in strength, temperature and pin-prick sensation in the affected areas. He was discharged on the sixth hospital day; no medications were prescribed. He was to be seen in the outpatient department.

COMMENT

The neurologic deficit presented by this patient is compatible with the Brown-Séquard syndrome. Several causes are known including spinal cord tumors, ischemic insults, trauma, degenerative diseases, A-V malformations, vascular lesions and demyelinating diseases. Although the exact etiology of the Brown-Séquard syndrome in this patient is unknown, certain speculations may be proposed.

The focal neurologic deficit localized to the cervical spinal cord, an increased CSF IgG (23 percent of the total protein), and a significantly elevated myelin basic protein suggest a demyelinating process such as multiple sclerosis. It must be pointed out that elevation of the myelin basic protein is not specific for multiple sclerosis. It can be found in a variety of other disorders including non-demyelinating and non-multiple sclerosis myelopathies, (cerebellar infarcts, vascular insults, transverse myelitis, central pontine myelinolysis). Furthermore, multiple sclerosis presenting as a partial or complete Brown-Séquard syndrome is uncommon, but may at times represent the first episode of what later becomes a series of relapsing and remitting symptoms due to multiple sites of central nervous system involvement. Another possibility for the patient's neurological deficit is a vasculitis and neurosyphilis. To that effect, his sedimentation rate (ESR)

"... multiple sclerosis presenting as a partial or complete Brown-Séquard syndrome is uncommon, but may at times represent the first episode..." "A limited group of disorders are known in which there is an association between regional depigmentation and neurologic dysfunction."

was normal and both cerebrospinal fluid (CSF) and serum serologic tests for syphilis were non-reactive, consequently making these diagnoses less likely. Finally, no structural abnormality was found to explain his neurologic disorder. Because of these findings, we speculate that a demyelinating disease such as multiple sclerosis is possible.

Sporadic accounts of congenital white forelock (poliosis) and regional depigmentation of the skin have been reported. Piebaldism is a rare congenital defect of skin pigmentation which may involve the scalp, face, hair, eyebrows, eyelashes, chest, abdomen and extremities. Heterochromia may also be present. Defects in melanoblast formation and maturation have been proposed as melanocytes are absent.² However, there is no known association with neurological or psychological disturbances.²⁻⁷

A limited group of disorders are known in which there is an association between regional depigmentation and neurologic dysfunction: (1) Waardenburg's syndrome is dominantly inherited and a congenital white forelock (poliosis) and heterochromia of the irides is associated with deafness. No other neurologic deficits are noted, 8,9 (2) Vogt-Koyanagi-Harada syndrome is sporadic and includes poliosis, vitiligo and dysacousia, 10-12 (3) neurofibromatosis is associated with café au lait spots or focal depigmentation as well as neural tumors including meningiomas, astrocytomas and neurofibrosarcomas, and in (4) tuberous sclerosis there may be cutaneous depigmentated macules, seizures and mental retardation. Finally, (5) ataxia telangiectasia (cerebellar ataxia) and (6) pernicious anemia (combined systems disease) may both be associated with decreased pigmentation of skin or hair.

The literature is otherwise very sparse concerning an association of piebaldism with other neurologic deficits besides deafness. Telfer, et al. described two families, some of whose members had white forelocks, leukoderma, neurosensory hearing loss, cerebellar ataxia, impaired motor coordination and mental retardation.¹³

Depigmentation and neurologic pathology might be expected to occur more commonly than reported. The embryologic development of the melocytes, peripheral nervous system and central nervous system are derived from the neural crest and neural plate. We postulate that a rare developmental error alters the normal formation of these tissues resulting in depigmentation and neurologic deficits. In most clinical instances the pigmentary and neurological abnormalities are congenital, however the neurologic features of Vogt-Koyanagi-Harada syndrome, neurofibromatosis, tuberous sclerosis, ataxia-telangiectasia and pernicious anemia may all be progressive or of late onset. The patient herein reported with congenital piebaldism and spinal hemisection may represent a new example of a similar association.

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NUTRITION UPDATE

Is Obesity a Genetic Disease?*

GILBERT B. FORBES, M.D., Rochester, NY

Obesity is one of the most common "nutritional" diseases in Western society. With rare exceptions, the proximate cause is energy imbalance. It must be admitted that our society fosters such imbalance, for food is abundant, palatable, and readily obtainable (hence the name "fast foods") for the vast majority of our citizens. The modern situation is compounded by our sedentary lifestyle and the lower energy need of our population with its increasing proportion of elderly. Given this conducive environment, one may well ask why more of us don't get fat. The fact that most of us do not points to some inherent feature of the individual as being of critical importance.

There is a considerable body of data which suggests that a tendency to obesity is inherited. Even the most casual observer cannot fail to notice family resemblances in body size and configuration. Family groups at church picnics, eating in restaurants, or attending sports events give a clear indication of "togetherness" for many physical attributes. Then if one considers various mammalian species, it is obvious that body fatness varies; contrast the horse and the pig; the greyhound and the bulldog; the seal and the shark. By determining the body-fat content in 49 species of freeliving mammals, previous workers found considerable interspecies variation.1 Carcass analysis showed that 34 species had less than 11 percent body fat, ten had 11 to 20 percent fat, and the remainder more than 20 percent. Another study analyzed a number of newborn animals and here, too, there were species differences, ranging from about 1.5 percent fat in the rat to 16 percent in the human, with intermediate values for the pig, cat, rabbit, mouse, seal, and guinea pig (10 percent fat), the fattest of the subhuman mammals which were studied.2 It turns out that man ranks among the fattest of mammals!

Young adult males contain 15 to 20 percent fat and the females 20 to 30 percent. The existence of a sex difference in body fatness, even in the human newborn, points to the influence of the sex chromosomes.³

Since animal species breed true, one cannot escape the conclusion that body fatness is inherited. Such is also the case, at least in man, for characteristics as stature, bone cortex thickness, and muscle strength. The question of interest, however, is whether obesity per se, i.e., supranormal fatness, is inherited. Several lines of evidence can be brought to bear on this question.

EVIDENCE FROM ANIMALS

A number of hereditary syndromes have been identified in mice and rats. Most are associated variably with hyperphagia, diabetes, inactivity, infertility, hypercholesteremia, and poor resistance to cold, in addition to obesity.

The autosomal recessive syndromes include the ob/ob, the db/db, and the ad/ad strains of mice, and the Zucker rat; dominant inheritance occurs in the lethal-yellow, and two viable-yellow mouse mutants, and it is of interest that the degree of obesity is proportional to the number of yellow hairs present.^{6,7}

Through selective breeding experiments carried out over many generations in mice, it has been possible to segregate "large" and "small" groups of animals. The former are one and one-half times larger and three to four times fatter than the latter group with no difference in food efficiency. When the fertilized egg from animals in one group is transplanted into the other, it turns out that the offspring genotype is more important in determining body size and fatness than is the foster mother's genotype. There are also strain differences in the adipose response of rats to high-fat diets.9

EVIDENCE FROM MAN

Family resemblance in body size and adiposity has been noted in the literature. According to one study, in the absence of parental obesity, the incidence of obesity in their children was about 14 percent; if one parent was obese, this rose to 40 percent, and if both were obese, it was higher yet (80 percent). In another, the values were 5 percent, 19 percent, and 32 percent, respectively. If Still another study found steadily rising values for abdominal skinfold thickness as parental fatness combinations proceeded from lean x lean to obese x obese. The present author's experience (unpublished) with 46 obese children seen in consultation showed that 33 of their 86 parents were obese, and only 8 were slender. Based on triceps skinfold thickness, siblings of obese children tend to be obese themselves, and siblings of thin children tend to be thin. In

It must be admitted, however, that such data do not prove the genetic hypothesis since close members of a family share a common environment. Indeed, it has been shown that husband-wife pairs do tend to resemble each other with regard to triceps skinfold thickness; however, the fact that this tendency also was manifest in younger couples indicates that assortative mating may have been as important as a shared environment.¹³

While it is not possible to do the type of breeding experiments in man that have been carried out in animals, observations on twins and adoptees can provide some insight.

^{*}Reprinted with permission of Contemporary Nutrition 6:8, 1981, a newsletter from the Nutrition Department of General Mills, Inc., Minneapolis. Dr. Forbes is Professor of Pediatrics, University of Rochester Medical Center, Rochester, NY 14642.

STUDIES OF TWINS

Monozygotic twins share common genes, whereas dizygotic twins are comparable to ordinary siblings in this respect. Monozygotic twins (MZ) are more concordant for body size in man than dizygotic twins (DZ) of the same sex6.14.15 as the elegant photographs by previous workers have clearly shown.16 In answer to the argument that most pairs of twins share the same environment, MZ twins reared apart are more concordant than DZ twins for body size. One study found that heritability of skinfold thickness was greater for older child twins than for younger.17 This suggests that environment (household-feeding patterns) played an important role in the younger child, while eventually the child's genotype becomes preeminent.

Another way to approach this question is to study adopted children: do they resemble their biological parents or their foster parents in body size? Here the evidence is conflicting. One study found that the correlation of child size with that of the biologic parent was significant, while that for the foster parent was not. ¹⁸ Another study claimed that infants reared by obese foster mothers were fatter than those reared by nonobese foster mothers, but close inspection of their data shows that this was true only for certain periods of the first year, at one year of age there is no difference. ¹⁹

On the other hand, the abdominal skinfold data from a third study show the same trends for foster parent-child relationships as those for the biologic parent-child: triceps skinfold thickness progressively increases as foster-parental combinations move from lean x lean to obese x obese.12 However, in this study no data were available on body fatness for the biologic parents of these adoptees, and if perchance the foster parents were selected by the adoption agencies to mimic the biologic parents, the described foster parent-child relationship cannot be used in support of the environmental hypothesis. In a study of 256 families, it was concluded that while height and weight showed significant parent-child correlations, body fatness did not.20 A later study which purports to show insignificant heritability for percent overweight is marred by reliance on history rather than actual measurement and by lack of distinction between foster and adopted children.21

Although published only in abstract form, there is one report of histocompatibility leukocyte antigen types in obese children. ²² HLA B13 antigen was found to be more common in those who had a family history of obesity than in those who did not.

OBESITY A DISEASE OF APPETITE

Eating behavior can be broken into two components, namely, hunger, a physiological phenomenon, and appetite, a psychological one.²³ Since obese individuals eat in excess of physiologic need, it is the appetite mechanism which is at fault. Incidentally, the very sedentary lifestyle of many obese individuals does not invalidate this premise. The frequent claim that obese people do not eat to excess has been put to rest nicely by direct observations of home-eating patterns; in two sibling families, the fatter sibling did eat more.²⁴ Thus

one must view obesity as a behavioral disorder and can look for evidence for inherited tendencies of other types of behavior. While an extreme example, schizophrenia is known to be genetic, but the same is true for alcoholism, ²⁵ for depression, ^{26,27} and for disturbed behavior. ²⁸ Indeed, a positive family history is one of the criteria used in the diagnosis of depression. Is it so farfetched, then, to assume that eating behavior also is inherited?

THE HYPOTHESIS

The United States produces more food than its citizens can consume, and it is this surfeit which makes possible their generous food intake. For the first time in the history of mankind, Western society has an abundance of palatable food at its disposal. The contribution of palatability is shown nicely by experiments in which laboratory rats did gain weight when given free access to highly palatable foods, only to lose it again upon resumption of a chow diet.²⁹ Why, then, don't all of us get fat? The present author's thesis is that appetite control is an important factor and that this is faulty for some of us.

Based on the available evidence from animals, including species differences, and from man, it is evident that the tendency to obesity is inherited, and that the gene(s) responsible find expression through modern food abundance. Indeed, "We need not argue any more about whether genes play a significant role. They do."6

The mechanism(s) through which the genes (the evidence best fits a polygenic model) exert their influence remains to be elucidated. Does the increased appetite represent a means of coping with the vicissitudes of life—a response to frustration, to feelings of inadequacy? Is eating the prime source of pleasure for some people? Whatever it may turn out to be, the mechanism is obviously a powerful and persistent one, for obesity once established is very resistant to treatment.

Many conditions result from an interaction of genes and environment. Susceptibility to dental caries (a familial trait) is expressed best by frequent consumption of fermentable carbohydrates. Scurvy, which is commonly considered an environmental disease, would not occur were it not that mankind lacks the gene for synthesis of ascorbic acid. Galactosemia, which is classed as a genetic disease, would not occur if our diet did not contain lactose (incidentally, the milk of the sea lion lacks this carbohydrate).

Does the genetic hypothesis of obesity lead to fatalism? We accept the fact that many conditions have a genetic basis—arthritis, diabetes, idiopathic scoliosis, congenital hypertrophic pyloric stenosis, to name but a few—yet this has not forestalled the search for effective treatment and/or amelioration of these conditions. Rather, in the knowledge that we can identify those individuals who are at greatest risk for obesity, we must redouble our efforts to understand better the basic nature of the transmitted influence, and build on this information to devise better methods of treatment and of prevention.

(References available upon request)

DOCTORS' NOTEBOOK

CMDNJ Notes Stanley S. Bergen, Jr., M.D. President

(I have asked Darwin J. Prockop, M.D., Ph.D., Professor and Chairman of the Department of Biochemistry and Professor of Medicine at CMDNJ-Rutgers Medical School, to serve as guest columnist this month. Dr. Prockop is an internationally-known scientist in collagen research, the subject of this month's column.)

Collagen is the tough, fibrous protein which holds together the cells and tissues of the body. It is the body's most abundant protein and the major constituent of connective tissues such as skin, bone,

and blood vessels. Mutations in collagen genes are responsible for a number of inherited diseases including Osteogenesis Imperfecta (brittle bone disease) and Ehlers-Danlos syndrome-a collection of diseases resulting in overelasticity and fragility of the skin, bones, and blood vessels. Collagen also is suspected of having an important role in the development of diabetes and arteriosclerosis. Because of collagen's vital function in every organ system, research on collagen can be expected to yield important information for thousands of sufferers of these and other diseases

My initial work on collagen began with an interest in developing a test to measure the rate of collagen degradation in metabolic diseases. The work, carried out under the supervision of Dr. Sidney Udenfriend at the National Institute of Health, provided a specific chemical assay for the amino acid hydroxyproline in urine. The test for urinary hydroxyproline, developed over 20 years ago, still is being employed to investigate rates of collagen degradation in thyroid disorders, parathyroid diseases, Paget's disease, and several other conditions. Subsequently, my colleagues and I studied the role of hydroxyproline in stabilizing the triple-helical conformation of the collagen molecule, an unusual protein structure which gives the molecule the ability to assemble into tough fibers. The work on the role of hydroxyproline in the triple helix of collagen led, indirectly,

Are the results of 100 million worth of government-funded research on hypertension worth reading about?



to the testing of agents that might inhibit folding of the protein into a triple helix and, thereby, might act as drugs to control the excess synthesis of collagen fibers which is seen in fibrotic conditions such as scarring of skin, keloid formation, pulmonary fibrosis, and the development of adhesions following surgery. We are currently investigating several such agents.

While we are studying the normal synthesis of collagen and inhibitors of collagen synthesis, we also are trying to pin down how and why mutations in collagen genes can produce inherited diseases. This research is concentrated in the areas of brittle bone disease and Ehlers-Danlos syndrome. In its most severe forms, brittle bone disease produces the death of fetuses due to multiple fractures before or during birth. In less severe forms of brittle bone disease, victims suffer from a multitude of problems, most notably numerous fractures produced by movements such as turning over in bed, sneezing, or even being hugged. Many sufferers are confined to wheelchairs.

Our immediate goal is the isolation of collagen genes using the technology of recombinant DNA or gene splicing. We already have been able to identify one collagen gene and its proper placement in the chromosomal structure. Now it is apparent that there are at least six distinct collagen genes, and each has a particular location and function in the development of tissues. My colleagues and I hope to use these genes to develop new prenatal diagnostic tests for severe forms of inherited collagen diseases, to give parents the option of aborting the fetus or adjusting to the limited lifestyle of the affected child.

In summary, our current work can be divided into three categories: (1) the study of the normal structure and function of collagens; (2) the cloning and characterizing of human collagen genes; and (3) the study of hereditary diseases produced by mutations in collagen genes. Though we are currently focusing our efforts on using recombinant DNA and other technologies to investigate two relatively rare genetic diseases affecting collagen (brittle bone disease and Ehlers-Danlos syndrome), the information being developed about these diseases should provide a basis for the investigation of collagen's possible role in such common human diseases as diabetes, osteoporosis (loss of bone density), osteoarthritis, and atherosclerosis.

MSNJ Auxiliary Phyllis Romano President

On October 26, 1981, the College of Medicine and Dentistry of New Jersey played host to our Auxiliary at a "Get Acquainted Day" on their Newark campus. Mrs. Evelyn Basralian, Liaison to CMDNJ, and Lois Doginieri, Coordinator of Special Events at CMDNJ, implemented the all-day program.

The day's events commenced with an address by Dr. Stanley Bergen, Jr., President of CMDNJ. Dr. Bergen gave an overview of the two hundred million dollar medical school complex. He stated that women comprise 30 percent of the 170 graduating medical students and that 15 percent of the 400 fulltime faculty members are female.

Following a welcome by Dr. Vincent Lanzoni, individual tour leaders and tour groups proceeded to assigned presentations of research programs conducted by doctors and professors of CMDNJ. The tour ended in the George F. Smith Library of Health Sciences where Mr. Philip Rosenstein, Director of Libraries, relayed to us the details of this modern and beautiful structure. It is the most comprehensive medical library in the entire state with a seating capacity of 400. Tapes, computer selection of all materials, slides, and texts are available for the use of all students and researchers at the medical school. The library may be used by other persons, but books may not be circulated.

Various department chairmen were our hosts and hostesses for a roundtable luncheon. Dr. Diane K. Shrier. Acting Chief of Child and Adolescent Psychiatry and Clinical Assistant Professor of Psychiatry and Mental Health Science, discussed the innovative elective course being offered to the students at the Newark campus entitled, "Parenting and Professionalism." The course deals with the issues of combining career and family, the stresses, and the recommended approaches for coping. The course has been so well received, that students at the Rutgers campus now are pressuring the administration to offer the course to them.

Our Liaison Representative is invited to attend all Board of Trustees' meetings in Newark, Piscataway, and Camden, for the purpose of bringing information of interest and importance to the Auxiliary. The Liaison Representative does

not commit the Auxiliary to any action without prior approval of its Executive Board and the Medical Society.

CMDNJ benefits from the Auxiliary's fundraising efforts for AMA-ERF and from donations from county auxiliaries and private sectors. We have a travelling AMA-ERF Committee: Mrs. Grace Gellman, Chairman; Mrs. Marilyn Pashuck; Mrs. Madeline DuPree; and Mrs. Evelyn Basralian. These women travel to the various county auxiliaries throughout the state with their beautiful gifts for sale. Through their efforts a sizable contribution is made to CMDNJ each year—the money given without any restrictions as to its expenditure.

Another "Get Acquainted Day" is being planned for April, 1982. This will be a tour of the Rutgers Medical School and an invitation is extended to physicians, their spouses, and their children to learn what is available to us.

We also urge you to contribute to AMA-ERF in honor of this excellent educational institution.

Transactions New Home

Arrangements have been completed to house the early Transactions of the Medical Society of New Jersey (1766-1903) in the George Smith Library of Health Sciences of the College of Medicine and Dentistry of New Jersey in Newark. They are under the supervision of the College Archivist and are located in the History of Medicine Room which has the controlled environment appropriate to preserving the collection. Access to the Transactions is available to members and staff of MSNJ and to bonafide researchers in the judgment of the Archivist. These volumes also are available on microfilm and can be viewed at MSNJ headquarters through arrangements with The Journal office.

> 216th Annual Meeting May 14-17, 1982

Resorts International Atlantic City

See Daily Schedule (page 70) for details

Information for the Use of Human Blood and Blood Components*

· Red Blood Cells (Human)

Leukocyte Poor Frozen

Deglycerolized

• Whole Blood (Human)

Modified, Platelets Removed Modified, Cryoprecipitated AHF Removed

Leukocyte Poor

- Heparinized Whole Blood (Human)
- Single Donor Plasma (Human), Fresh Frozen
- Single Donor Plasma (Human)
- Cryoprecipitated Antihemophilic Factor (Human)
- Platelet Concentrate (Human)
- Leukocyte Concentrate (Human)

This information is supplied to conform with applicable federal statutes and regulations of the U.S. Department of Health and Human Services. Federal law prohibits dispensing the products described without a prescription.

Blood and blood components are biological products, and in some cases living human tissue, intended for use by physicians in the care of their patients. Professional judgment based on clinical evaluation determines the selection of components, the dosage, the rate of administration, and the decisions in situations not covered in this general statement. The possible presence of certain infectious agents and undesirable side effects in some recipients cannot be avoided. Therefore, this information as a whole, or in any of its parts, cannot be considered, or interpreted as, an express or implied warranty of the safety or fitness of the described blood or blood components when they are used for their intended purpose.

Testing of a sample of donor blood is required before units of blood or blood components are available for use. The label of the unit may indicate the test result or bear the statement "Meets FDA Requirements." Tests include blood grouping, screening for unexpected antibodies, a serologic test for syphilis, and screening for HBsAg (hepatitis B surface antigen).

RED BLOOD CELLS (HUMAN)

Description

Red Blood Cells (Human) are the cells that remain after the plasma is separated from whole blood at any time during the dating period. The label indicates the anticoagulant used in collecting the donor blood, the storage temperature, and the expiration date, which varies with the method of preparation.

Action

Red blood cells provide a source of oxygen-carrying capacity and red cell mass for volume replacement.

Indications

Red blood cells are the component of choice for most patients with a symptomatic deficit of oxygen-carrying capacity. This component can be used to maintain blood volume and for exchange transfusion. It is superior to whole blood for patients with cardiac disease and

*This material was prepared jointly by the American Association of Blood Banks and the American Red Cross. It has the approval of the Bureau of Biologics (FDA).

In 1977, when the Veterans Administration compared Step-2 regimens in 450 mild hypertensive patients, which regimen was proven most effective?'



chronic anemia and for those requiring restricted sodium or citrate intake, for example, those with liver or kidney disease. Because of the minimal amount of plasma and hence ABO alloantibodies, red blood cell units are required when compatible non-ABO identical blood is used. If oxygen-carrying capacity replacement is required in surgery, red blood cells should be considered in preference to whole blood unless massive hemorrhage is anticipated.

Contraindications

- 1. Do not use when anemia and/or hypoxia can be corrected with specific products, for example, iron, B₁₂ folic acid
- 2. Do not use for correcting coagulation deficiencies.
- 3. Do not use unless they are ABO compatible. Crossmatching is required unless the withholding of red blood cells might result in loss of life.
- 4. Do not use for exchange transfusion later than five days after donation unless only older product is available.

Side Effects and Hazards

These are the same as for Whole Blood (Human) except that the removal of plasma reduces the amount of metabolites and antibodies and lessens the risk of circulatory overload.

Dosage and Administration

The amount administered depends on the clinical situation in each patient. The usual unit for an adult contains 200 ml of red blood cells, with a hematocrit of 70 percent to 80 percent, and should raise the recipient's hematocrit about 3 percent. For pediatric patients and in other special circumstances, smaller volume units may be available.

Red blood cells must be administered through a filter and can be warmed to a temperature not to exceed 37°C during administration if that is clinically indicated. The rate of infusion depends on the clinical status of the patient but should not exceed four hours per unit. Fifty to 100 ml of sterile isotonic sodium chloride solution, U.S.P., can be added to red blood cells immediately prior to infusion; however, no other solutions or medications should be added to the unit.

Modifications of Red Blood Cells (Human) and recommended dosages are described below.

RED BLOOD CELLS (HUMAN) LEUKOCYTE POOR

Red Blood Cells (Human) or Whole Blood (Human) may be modified by

filtration, centrifugation, batch washing, the addition of sedimenting agents, or a combination of these procedures to remove leukocytes. Such blood modifications primarily are indicated for patients with febrile transfusion reactions due to antileukocyte antibodies. The washing of red blood cells also removes plasma, and units prepared by this technique may be indicated for patients with paroxysmal nocturnal hemoglobinuria (PNH), antibodies to IgA, or other conditions requiring infusion of plasmapoor red blood cells. This product also may be desirable for patients who are candidates for transplantation; however, definitive data are not yet available. Removal of leukocytes combined with radiation also may be indicated for prevention of graft versus host disease in immunodeficient patients. The expiration date on the label will vary with the method of preparation. Except for additional side effects associated with the use of sedimenting agents, this component is similar in its dosage, administration, and hazards to those outlined for Red Blood Cells (Human).

RED BLOOD CELLS (HUMAN) FROZEN, AND RED BLOOD CELLS (HUMAN), DEGLYCEROLIZED

Red blood cells can be modified by the addition of glycerol as an endocellular cryoprotective agent. Red blood cells so prepared can be frozen for storage up to three years. Both the temperature and the time of storage depend on the concentration of glycerol added prior to the freezing of the cells. When thawed and washed to remove the glycerol, red blood cells are obtained with function and survival similar to those of liquid stored cells of a comparable age (based on the number of days after collection that the unit was frozen). In the wash procedure almost all the plasma proteins, anticoagulant, platelets, and leukocytes are removed. Red blood cells prepared by freezethaw-wash techniques have the same indications for use as Red Blood Cells (Human), Leukocyte Poor. The contraindications, side effects and hazards, and dosage and administration are those outlined for Red Blood Cells (Human). There is the additional hazard of intravascular hemolysis if the glycerol has not been removed adequately.

WHOLE BLOOD (HUMAN)

Description

Whole Blood (Human) is blood collected from selected human donors for transfusion. The label indicates the anticoagulant solution used, the storage temperature, and the expiration date, which varies with the method of collection.

Action

Whole blood provides a source of oxygen-carrying capacity (red cell mass), volume expansion, and proteins with oncotic and coagulation properties.

Indications

Whole blood is indicated only for those patients who have a symptomatic deficit in oxygen-carrying capacity combined with hypovolemia of sufficient degree to be associated with shock. If only the former is present, Red Blood Cells (Human) is the component of choice. Whole blood can be used for exchange transfusion and replacement of coagulation factors; however, in the absence of volume loss, coagulation proteins should be replaced by specific components or concentrates. Whole blood intended to replace labile coagulation factors (V, VIII, platelets) should be less than 24 hours old. Limiting the use of whole blood to these specific indications, for example, massive or exchange transfusion, makes it possible to prepare several components from most donor units and thus to maximize the use of the blood resource.

Contraindications

- 1. Do not use when anemia can be treated with specific products.
- 2. Do not use when volume can be safely and adequately replaced with other volume expanders, for example, saline, Ringer's lactate, albumin, plasma protein fraction.
- 3. Do not use unless donor and recipient are ABO identical. Crossmatching is required unless the withholding of blood might result in loss of life.
- 4. Do not use for exchange transfusion if whole blood is more than five days old, unless only older product is available.

Side Effects and Hazards

Transfusion therapy requires the judgment of a physician in the weighing of the potential benefits against the potential adverse effects. The principal hazards and side effects follow.

1. Hemolytic transfusion reactions occur when there is incompatibility between donor red blood cells and recipient plasma. Usually these reactions occur when clerical or other identification errors lead to an ABO mismatch. Careful protocols to assure proper identification when patient samples are drawn, during laboratory testing, and prior to the starting of a transfusion will prevent most hemolytic reactions. The more severe reactions are characterized by shock, chills, fever, dyspnea, back pain, headache, and/or abnormal bleeding. Hemoglobinemia followed by hemoglobinuria and bilirubinemia will occur. Renal shutdown may ensue. Treatment includes the stopping of the transfusion, the management of shock, and the judicious administration of fluids and diuretics.

Causes of *in vivo* hemolysis, some of which are not related to transfusions, include (a) the administration of hypotonic fluids, (b) bacterial infection of the patient or contamination of the donor blood, (c) acute hemolytic anemia from any cause, or (d) improper handling of the blood—for example, overheating, freezing.

2. Transmission of infectious disease may occur in spite of careful donor selection and the testing of blood prior to infusion. Viral hepatitis may be transmitted by 0.02 to 2.0 percent of trans-

fusions; the exact incidence is unknown and varies from population to population. Tests for HBsAg detect most but not all carriers of the hepatitis B virus. Much transfusion-associated hepatitis is probably due to non-A, non-B hepatitis virus(es) for which no tests exist. Cases of hepatitis vary in severity and may be fatal. Prevention of this complication is aided by the reporting of all suspected cases to the supplying blood bank, the periodic reviewing of all hepatitis cases, and the monitoring of the sources of donor blood.

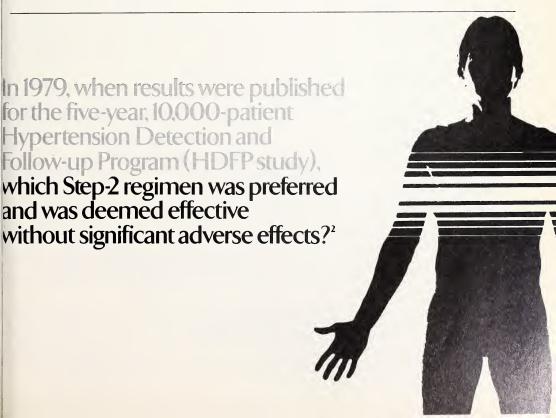
Malaria, syphilis in the seronegative phase, Epstein-Barr virus, cytomegalovirus, brucellosis, trypanosomiasis, Colorado tick fever, and other infections very rarely may be transmitted by blood.

3. Immunization of the recipient to red blood cell, white blood cell, platelet, and protein antigens may be a consequence of transfusion. This complication is not life threatening nor does it cause symptoms; however, subsequent blood or component transfusions may have to be selected to avoid serious reactions due to specific antigens to which the recipient has become sensitized. Red blood cell antibodies, which may have been stimulation.

lated by a prior pregnancy, usually will be detected in an antibody screening test and/or a compatibility test prior to transfusion. New blood samples for antibody screening and/or compatibility testing must be obtained at least every 48 hours when a patient recently has been transfused or is pregnant. In occasional patients with serologically undetected antibodies, delayed hemolytic reactions can develop. This type of reaction may mimic autoimmune hemolytic anemia with a positive, direct antiglobulin test.

4. Febrile reactions with or without chills that occur after 0.5 percent to 1.0 percent of transfusions frequently are related to prior sensitization to HLA or other antigens on leukocytes and platelets. Tests for these antibodies may be useful in deciding which patients will benefit from use of leukocyte-poor or frozen-deglycerolized red blood cells.

5. Allergic reactions manifested by urticaria may occur in up to 3 percent of recipients. Occasionally chills and fever also are observed. The exact cause of these reactions is unknown; however, they are less frequent when red blood cells are used and may be prevented in patients with a prior history of such



reactions by premedication of the patient with an antihistamine. In the rare individuals lacking IgA (about 1 in 500) who develop anti-IgA antibodies, anaphylactoid reactions manifested by bronchospasm, air hunger, and a sense of impending doom may occur. Immediate treatment with adrenalin and corticosteroids is indicatred. IgA-deficient blood or well-washed red blood cells are required for futher transfusions.

- 6. Circulatory overload reactions manifested by pulmonary edema occur when excessive volume is administered. This is a particular risk in chronic severe anemia where there is decreased red blood cell mass and increased plasma volume. The use of red blood cells and proper spacing of transfusions will minimize the occurrence of this complication
- 7. Bacterial contamination of the donor blood is extremely rare. The presence of gram-negative bacilli may cause severe endotoxin shock, frequently associated with redness of the skin (red shock). This reaction is prevented by proper storage and handling of the blood and the use of sterile equipment and techniques. Management must be immediate and aggressive to be lifesaving.
- 8. Air embolism may complicate a transfusion if infusion under pressure is used with an open system or if air enters the system during the changing of bags and sets.
- Iron overload with resultant hemosiderosis may occur in patients given repeated transfusions over long periods of time.
- 10. Metabolic complications of transfusion usually occur when massive amounts of blood rapidly are infused (amounts equal to or greater than the patient's blood volume in a few hours) or when the patient has severe liver or kidney disease. For example:
- a. Citrate toxicity is rare but may occur if there is severe liver disease. Intravenous calcium gluconate (0.5-1 ml of 10 percent solution/100 ml of transfused blood) has been recommended to prevent this reaction. It must not be added directly to the blood pack. EKG monitoring may be helpful in detecting effects of hypocalcemia.
- b. Acidosis, which may occur initially during massive transfusion, usually is followed by a metabolic alkalosis and almost never requires treatment. In rare cases buffers such as THAM or bicarbonate have been used successfully.
- c. Hypothermia, with the risk of cardiac arrhythmia, may occur in

massive transfusion. Hypothermia also complicates other metabolic changes and affects oxygen release from hemoglobin. This complication is prevented by the use of a controlled warming device in line with the infusion set.

- d. *Hypokalemia* may be observed in massive transfusion and may be treated by the use of IV solutions of potassium.
- e. Depletion of coagulation proteins and platelets is a rare complication of massive transfusion. If excessive bleeding occurs, the possibility of a hemolytic reaction complicated by DIC should be considered. Treatment with platelet concentrates and specific components with coagulation factors, for example, freshfrozen plasma, may be useful.
- f. Microaggregates, consisting of fibrin, white cells, and platelets, may develop during the storage of blood. The smallest of these particles may not be retained in an ordinary blood filter. The use of filters designed to remove these particles is recommended in cardio-pulmonary bypass procedures. The usefulness of special filters in massive transfusion has not been established. Most of these metabolic complications are avoided if circulatory efficiency and good resuscitation are maintained.

Dosage and Administration

The amount administered depends on the clinical situation in each patient, including the rate and volume of blood loss. The usual unit for an adult contains 520±45 ml of anticoagulated blood, with a hematocrit of about 40 percent. Smaller-volume containers are available for pediatric patients and for other special uses. Whole Blood (Human) must be administered through a filter and can be warmed not to exceed 37°C during infusion if that is clinically indicated. The rate of infusion depends on the clinical status of the patient but should not be slower than four hours per unit. If the volume status of the patient requires slow infusion rates, then Red Blood Cells (Human) rather than Whole Blood (Human) should be used. No medications or solutions should be added to Whole Blood (Human).

Modifications of Whole Blood (Human) and recommended dosages are described below.

WHOLE BLOOD (HUMAN) MODIFIED, PLATELETS REMOVED; AND WHOLE BLOOD (HUMAN) MODIFIED, CRYOPRECIPITATED AHF REMOVED

Whole Blood (Human), Modified, has

had certain labile components (see label) removed shortly after collection from the donor. Such units are prepared in a closed system to maintain sterility. After removal of the labile component, the remaining plasma is used to resuspend the red blood cells in the original container. Except for the infrequent case needing platelets or Factor VIII replacement in addition to volume and oxygen-carrying capacity, Whole Blood (Human), Modified, has the same indications, side effects, dosage, as does Whole Blood (Human).

WHOLE BLOOD (HUMAN) LEUKOCYTE POOR

See Red Blood Cells (Human), Leukocyte Poor.

HEPARINIZED WHOLE BLOOD (HUMAN)

Heparinized whole blood occasionally is used in special circumstances, for example, when an exchange transfusion in the adult is indicated or when a pumpoxygenator is required. This component can be obtained by the use of heparin in the primary collection or by the conversion of a unit collected in a citrate anticoagulant. This latter approach, which is preferred because of the limited dating period of blood collected in heparin, requires the addition of recommended quantities of heparin and calcium chloride immediately prior to use.

Contraindications

- 1. Do not use for routine transfusion.
- 2. Same contraindications as for Whole Blood (Human).

Special Precautions

Heparin effect in the patient may be counteracted by the appropriate dosage of protamine sulfate.

Side Effects and Hazards, Dosage and Administration

These are essentially the same as for Whole Blood (Human).

SINGLE DONOR PLASMA (HUMAN), FRESH FROZEN

Description

Single Donor Plasma (Human), Fresh Frozen, is the anticoagulated plasma separated from an individual donor's blood and frozen within six hours of collection. The type of anticoagulant, expiration date, and storage temperature are indicated on the label.

Action

Plasma frozen freshly after collection and maintained as indicated on the label until just before use is a source of clotting factors, including labile Factors V and VIII, and fibrinogen. It also can provide plasma proteins for volume expansion.

Indications

Single Donor Plasma (Human), Fresh Frozen, is indicated for use in control of bleeding in patients with clinical situations requiring replacement of labile plasma coagulation factors for which concentrates are not available. This component may be a useful adjunct in massive transfusion to prevent dilutional hypocoagulability and in patients with severe liver disease who have limited synthesis of plasma coagulation factors.

Contraindications

Do not use when coagulopathy can be corrected with specific therapy, for example, vitamin K, cryoprecipitate, or antihemophilic (Factor VIII) concentrates.

Side Effects and Hazards

Side effects and hazards include chills and fever, allergic reactions, and circulatory overload. This latter complication can be avoided by the use of specific coagulation concentrates when high levels of factors are required. The risk of transmitting viral hepatitis and other diseases is present. If large volumes are used, citrate toxicity and hypothermia may occur. Compatibility testing prior to use is not necessary; rarely, however, antibodies in the plasma can react with the recipient's red cells, causing a positive direct antiglobulin test and possibly hemolysis.

Dosage and Administration

The amount administered depends on the clinical situation and may be determined by serial laboratory assays of coagulation. The usual unit for an adult contains approximately 225 to 275 ml of anticoagulated plasma with about 400 mg of fibrinogen, 200 units of Factor VIII, and 200 units of Factor IX, as well as the other stable and labile coagulation factors. For pediatric patients and in other special circumstances, smaller vol-

ume units with proportionally less coagulation factors may be available. Immediately prior to administration, the frozen plasma should be thawed, but not warmed, in a 37°C water bath with gentle agitation. This component should be ABO compatible (RH need not be considered) and administered through a filter, and no medications or solutions should be added.

SINGLE DONOR PLASMA (HUMAN) Description

Single Donor Plasma (Human) is the anticoagulated plasma separated from an individual donor's blood within 26 days of collection. This material is stored frozen. The anticoagulant, storage temperature, and expiration date are indicated on the label.

Action

This material is a source of fluid that contains protein.

Indications

Single Donor Plasma (Human) is indicated for volume replacement in hypovolemia and as a protein-contain-

In 1980, when the loint National Committee on Detection, Evaluation, and Ireatment of High Blood Pressure published their recommendations, which Step-2 regimen best met their criteria for effectiveness, safety, simplicity of titration, convenience, and economy?'

ing fluid in selected patients with severe hypoproteinemia. This component can be used as a source of fibrinogen or Factor IX.

Contraindications

Do not use for replacement of labile coagulation factors.

Side Effects and Hazards, Dosage and Administration

These are similar to those for Single Donor Plasma (Human), Fresh Frozen. Modifications of Single Donor Plasma (Human) and recommended dosages are described below.

SINGLE DONOR PLASMA (HUMAN), LIQUID

Single Donor Plasma (Human), Liquid, is the anticoagulated plasma collected from an individual blood donor. It differs from Single Donor Plasma (Human) in its storage and dating period (see label). This component is similar in its actions, uses, and side effects to Single Donor Plasma (Human).

CRYOPRECIPITATED ANTIHEMOPHILIC FACTOR (HUMAN)

Description

Cryoprecipitated AHF is a preparation containing the antihemophilic factor (Factor VIII) obtained from a single unit of human blood. It is prepared by slowly thawing at 4°C, rapidly frozen, fresh anticoagulated plasma. The anticoagulant, storage temperature, and dating period are indicated on the label.

Action

Cryoprecipitated AHF provides a source of Factors VIII and XIII and fibringen.

Indications

This component is indicated for treatment of hemophilia A. It can be used in the control of bleeding associated with Factor VIII deficiency. Also it is indicated in von Willebrand's disease and for replacement of fibrinogen or Factor XIII.

Contraindications

Do not use unless laboratory studies indicate the specific coagulation defect.

Side Effects and Hazards

This product may transmit viral hepatitis and other diseases. Side effects may include febrile and allergic reactions. Compatibility testing is unnecessary. ABO group-compatible material is preferred but not essential. Rh need not be considered when this component is used. In rare cases, if a large volume of ABO-incompatible material is used, the recipient may develop a positive direct antiglobulin test and hemolysis.

Dosage and Administration

The level of Factor VIII needed for therapy or prophylaxis is not predictable precisely and varies with each patient and clinical situation. The usual unit contains an average of 80 units of Factor VIII and 200 mgs of fibrinogen in about 15 ml of plasma. The material that is stored as indicated on the label should

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be thawed but not warmed in a water bath at 37°C. Do not refrigerate after thawing. Thawed cryoprecipitate can be kept at room temperature for up to six hours prior to use if the container has not been entered. If the container is entered for pooling or other reasons, cryoprecipitate must be used within four hours. Cryoprecipitate must be given intravenously through an appropriate filter.

For treatment of hemophilia, rapid infusion of a loading dose expected to produce the desired level of Factor VIII usually is followed by a smaller maintenance dose every 12 hours. To maintain hemostasis after surgery, a regimen of therapy for ten days or longer may be required. If circulating anticoagulants are present, larger doses, higher activity concentrates, or other special measures may be indicated. To calculate dosage the following formula is helpful:

Desired Factor VIII level in % x patient's plasma volume in ml
100 x Average units Factor VIII per cryo (80)
= number of cryoprecipitate bags required.

For treatment of von Willebrand's disease, smaller amounts given less frequently usually correct the deficit. These patients should be monitored by appropriate laboratory studies.

PLATELET CONCENTRATE (HUMAN)

Description

Platelet Concentrate (Human) is the platelets separated from whole blood collected from a single donor and suspended in a specified volume of the original plasma. The label indicates the type of anticoagulant used in collecting the donor blood, the volume, the storage temperature, and the expiration time and date.

Action

This component corrects hemostatic deficit in thrombocytopenic patients or individuals with functionally abnormal platelets.

Indications

Platelet Concentrate (Human) is indicated for treatment of bleeding due to thrombocytopenia or functionally abnormal platelets. Platelet transfusions usually are not effective or indicated in patients with rapid platelet destruction associated with idiopathic or immune thrombocytopenic purpura (ITP) or disseminated intravascular coagulation (DIC). Platelets may be useful in patients with rapidly falling levels secondary to chemotherapy and in selected cases of postoperative bleeding.

Contraindications

Do not use if bleeding is unrelated to decreased numbers of, or abnormally functioning, platelets.

Side Effects and Hazards

Chills, fever, and allergic reactions may occur. The risk of disease transmission, especially viral hepatitis, is present. Repeated transfusions can lead to immunization to HLA antigens and a refractory state in the patient that may then respond only to HLA-matched platelet concentrates. Immunization to red blood cell antigens may occur because of the presence of red blood cells. When platelet concentrates from Rh positive donors are used in a young Rh

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negative female recipient, prevention of $Rh_b(D)$ sensitization by use of anti-Rh immune globulin should be considered. Compatibility testing prior to use is not necessary. ABO-incompatible platelets can be used if they are not grossly contaminated with red blood cells. In some patients this may lead to a positive direct antiglobulin test and hemolysis. Large numbers of platelet concentrates can cause circulatory overload, citrate toxicity, and other complications related to increased volume.

Dosage and Administration

The number of platelet concentrates to be administered depends on the clinical situation in each patient. The usual unit of platelet concentrate contains not less than 5.5×10^{10} platelets suspended in 20 to 30 ml (if stored at 1° -6°C) or 30 to 50 ml (if stored at 20° -24°C) of plasma. One unit of platelet concentrate usually increases the platelet count of a 70-kg adult by $5,000/\mu$ l. The expected response will not occur if the patient destroys transfused platelets rapidly as in DIC, sepsis, or when the patient is alloimmunized by previous transfusions. The usual dose in

a patient with bleeding symptoms and a platelet count below 25,000/µl is six to eight units. This dose may need to be repeated in two to four days because of the short half life of platelets (three to four days). Larger numbers of platelets from a single donor may be obtained by pheresis. This latter procedure is required when HLA-matched donors are used.

Platelet concentrates should be administered through a filter. Certain microaggregate filters remove platelets. Do not add medications. The container and filter may be flushed with sterile isotonic saline to maximize the number of platelets administered. If the container is entered for pooling or other reasons, platelet concentrate must be used within four hours.

LEUKOCYTE CONCENTRATE (HUMAN)

Description

Leukocyte Concentrate (Human) is the buffy coat obtained by pheresis from a single donor. Usual methods of preparation include continuous or discontinuous centrifugation or filtration leukapheresis. The final product consists of leukocytes, platelets, and erythrocytes in varying amounts suspended in 200 to 500 ml of anticoagulated plasma, as indicated on the label. Agents used to increase granulocyte yields, such as hydroxyethyl starch, may be present.

Action

Leukocyte Concentrate (Human) provides a source of granulocytes.

Indications

The primary indication for Leukocyte Concentrate (Human) is as supportive therapy for patients with neutropenia who have infections not responsive to antibiotic or other modalities of therapy. The effectiveness of leukocyte concentrate in various clinical conditions is still under investigation.

Contraindications

- 1. If recovery of bone marrow function is precluded, granulocyte transfusion is unlikely to alter the clinical course of a neutropenic patient.
- 2. Must be ABO compatible.

Side Effects and Hazards

Chills, fever, and allergic reactions may occur. The risk of disease trans-

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Brief Summary of Prescribing Information (12) 10/27/78

For complete information consult Official Package Circular.

WARNING

This fixed combination drug is not indicated for initial therapy of hypertension. Hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension is not static, but must be reevaluated as conditions in each patient warrant.

CONTRAINDICATIONS

Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.

WARNINGS

Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients.

Use in Pregnancy

Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.

PRECAUTIONS

Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokalemia

(especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss may cause digitalis intoxication. Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease or bronchial asthma and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.

mission, especially viral hepatitis and CMV, is present. Sensitization to HLA and red cell antigens may occur. In immunodeficient or immunosuppressed patients, graft versus host reaction can be initiated. The presence of red cells in this component can result in hemolytic reactions and other side effects associated with red blood cell transfusions. Severe reactions with fever and rigor and/or pulmonary insufficiency have been reported.

Dosage and Administration

Leukocyte concentrates obtained by centrifugation contain about 0.5-2.0 x 10¹⁰ granulocytes, 4.0-7.0 x 10¹¹ platelets, and 25 to 50 ml of red cells. Those prepared by filtration contain abut 2.0-3.0 x 10¹⁰ granulocytes, 4.0 x 10¹⁰ platelets, and 5 to 30 ml of red cells. The currently recommended course of

therapy is one unit of leuk ocyte concentrate daily until there is an apparent cure of infection-as indicated by sustained defervescence, negative blood culture, healing of an infected area-or until bone marrow recovery ensues. Thus the number of units given will vary with each patient. Side effects can be avoided or lessened by slow administration and with the use of diphenhydramine and meperidine. The occurrence of chills, fever, or hives is an indication to slow the rate of administration but is not an indication for stopping the transfusion. Fever and chills are most frequent with the use of leukocytes prepared by filtra-

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Hydroflumethiazide

Skin-rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation.

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USUAL DOSE

1 tablet b.i.d.

SUPPLIED

Bottles of 100 and 1000 scored 50 mg. tablets.

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ANESTHESIOLOGY-Hossain Esmaili, M.D., P.O. Box 1017, Franklin, VA 23851. Tabrize (Iran) 1971. Any type practice. Available.

CARDIOLOGY-Stephen Rothbart, M.D., 1343 Amherst Avenue, Union, NJ 07083. CMDNJ 1977. Trained in all invasive and noninvasive techniques. Group, partnership, solo. Available July 1982.

Arkady B. Rapoport, M.D., 4121 Meadowbrook Lane, Minneapolis, MN 55426. Minnesota 1981. Also, general internal medicine. Board eligible (both IM and cardiology). Group, partnership, solo. Available July 1982.

Richard C. Redline, M.D., 26 Mt. Vernon Street, Apt. 4-F, Boston, MA 02108. Virginia 1977. Also, general internal medicine. Board certified (IM). All areas of cardiology including echocardiography, nuclear, catheterization. Group, partnership, solo. Available July 1982.

Naeem Anwar Khan, M.D., 64 Mayfair Drive, West Orange, NJ 07052. Khyber (Pakistan) 1973. Also, general internal medicine. Board certified (IM). Solo, group, partnership, hospital-based. Available July 1982.

Gerald I. Myers, M.D., 6324 Alderson Street, Pittsburgh, PA 15217. Temple 1976. Also, general internal medicine. Board certified (IM). Group or partnership. Available.

FAMILY MEDICINE-Martin M. Keibel, M.D., 329 Water Street, Hallowell, ME 04347. SUNY-Downstate 1977. Board certified. Group. Available August 1982.

GASTROENTEROLOGY-Philip Nagel, M.D., 8155 North Karlov, Skokie, IL 60076. University of Pennsylvania 1974. Also, general internal medicine. Board certified (IM). Consultative gastroenterology-single or multi-specialty group, clinic or hospital-based practice. Available July 1982.

Bruce J. Langner, M.D., 12 Cedar Pond Drive, Apt. 9, Warwick, RI 02886. Guadalajara (Mexico) 1976. Board eligible. Group or partnership (IM and gastroenterology.) Available July 1982.

Jeffrey J. Kutscher, M.D., 435 East 70th Street, New York, NY 10021. Case Western 1977. Also, general internal medicine. Board certified (IM). Group, partnership, solo, institutional. Available June 1982.

GENERAL MEDICINE—Biagio Scialpi, M.D., 330 Park Hill Avenue, Yonkers, NY 10705. Bari (Italy) 1949. Group, solo, or full-time position in industry or insurance. Available.

HEMATOLOGY/ONCOLOGY-Michael Willen, M.D., 164 Homestead Avenue, Albany, NY 12203. New York Medical 1976. Also, general internal medicine. Board certified (IM). Board eligiblehematology/oncology, Group or partnership. Available July 1982.

Douglas Faig, M.D., 3450 Wayne Avenue, Apt. 23-D, Bronx, NY 10467, NYU 1976. Also, general internal medicine and blood banking. Board certified (IM). Board eligible-hematology/oncology. Group, partnership. Available July 1982.

INDUSTRIAL MEDICINE-Albert Abraham, M.D., 11 Cromwell Drive, Convent Station, NJ 07961. New York University. Board certified (1M). Medical directorship (preferably in or near Morris Countv. Available.

INTERNAL MEDICINE-David Guttman, M.D., 353 East 17th Street, New York, NY 10003. New York University 1977. Subspecialty, gastroenterology. Board certified. Group, partnership, solo. Available July 1982.

Cuddalore P. Vasudevan, M.D., 14500 S. McNab Avenue, Apt. 2810, Bellflower, CA 90706. Madras 1974. Subspecialty, pulmonary medicine. Board certified. Solo. Available July 1982.

James A. Scerbo, M.D., 3582 Green Brier Boulevard, Apt. 404-C, Ann Arbor, MI 48105. Columbia 1979. Partnership or group. Available July 1982.

Arvind M. Mehta, M.D., 672 General Scott Road, King of Prussia, PA 19406. Baroda (India) 1973. Subspecialty, cardiology (preferably noninvasive). Board eligible (both). Single or multi-specialty group. Available.

Randolph J. Swiller, M.D., 182-11 Henley Road, Jamaica Estates, NY 11432. Chicago 1972. Board eligible. Group or partnership. Available.

Harish N. Nagarsheth, M.D., 12 Marlboro Court, Maywood, NJ 07607. Seth (India) 1975. Subspecialty, cardiology. Board eligible. Hospital-based solo, partnership, group. Available July 1982.

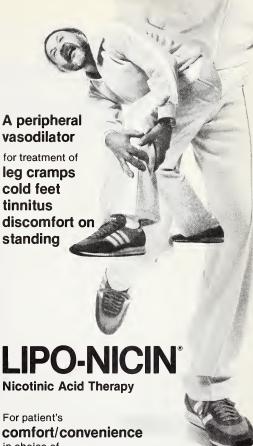
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Richard A. Balter, M.D., Division of General Internal Medicine, Georgetown University Hospital, 3800 Reservoir Road, NW, Washington, DC 20007. NYU 1978. Board eligible. Partnership, group. Available July 1982.

Jerome R. Weiner, M.D., 6045 Spender Avenue, Bronx, NY 10471. Mount Sinai 1977. Subspecialty, pulmonary medicine. Board certified. Solo or group private practice in pulmonary diseases. Available July 1982.

Kabul S. Garg, M.D., 129 York Street, Apt. 6-M, New Haven, CT 06511. Patiala (India) 1972. Subspecialty, cardiology. Solo or group practice. Available July 1982.



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- Brooklyn, NY 11214. Seth G.S. (India) 1976. Also, general internal medicine. Board certified (IM). Any type practice. Available July 1982.
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- RHEUMATOLOGY—Michael A. Friedman, M.D., 135 Loblolly Lane, Chapel Hill, NC 27514. Wisconsin. Board certified. Group, partnership, solo, hospital-based. Available.
 - Thomas A. Giangrasso, M.D., 3550 Jeanne Mance, Apt. 2402, Montreal, Quebec, Canada H2X 3P7. Medical College of PA 1975. Subspecialties, allergy/immunology. Board certified (also IM). Any type practice. Available.
- SURGERY, GENERAL—S.R. Bajina, M.D., E1501, Park Towne Place, 2200 Benjamin Franklin Parkway, Philadelphia, PA 19130. Special interest—gastrointestinal endoscopy. Board certified. Solo, group, institutional-based. Available.
 - Rajendra M. Agarwal, M.D., 318 East 15th Street, New York, NY 10003. King George's (India) 1968. Solo, group, or partnership. Available.
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 - Kong Hua L. Go, M.D., 605 Louisiana Avenue, Apt. 17-A, Brooklyn, NY 11239. Far Eastern (Philippines) 1973. Board eligible. Any type practice. Available.
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- SURGERY, ORTHOPEDIC—Steven H. Fried, M.D., The Hospital for Special Surgery, 535 East 70th Street, New York, NY 10021. Rutgers 1975. Any type practice, plus part-time faculty position. Available.

- Inder J. Singh, M.D., WCMC #1C Beachwood Hall, Valhalla, NY 10595, K.G. Medical, Lucknow (India) 1968. Solo or partnership. Available.
- Mark M. Kramer, M.D., 3450-12 Wayne Avenue, Bronx, NY 10467. Vanderbilt 1976. Board eligible. Private practice. Available.
- SURGERY, PLASTIC—Vasdev S. Rai, M.D., 435 East 70th Street, Apt. 22-B, New York, NY 10021. Punjab (India) 1973. Board eligible. Solo, partnership, group. Available July 1982.
 - E. B. Mustafa, M.D., 825 Pontiac Avenue, Apt. 5102, Cranston, RI 02910. Alexandria (Egypt) 1973. Board certified (surgery). Board eligible (plastic surgery). Solo or association. Available.
- SURGERY, VASCULAR—Pramod Batra, M.D., 600 East 18th Street, Apt. 2-C, Brooklyn, NY 11226. Patiala (India) 1969. Board certified. Solo, group, associate. Available.
 - A. Ghosh, M.D., Apt. 135, 1645 East Thomas Road, Phoenix, AZ 85016. Prince of Wales (India) 1970. Board eligible. Solo, partnership, group. Available.
 - Ahmed I. Khan, M.D., 5627 North 16th Street, Apt. H-8, Phoenix, AZ 85016. Dacca (Bangladesh) 1972. Also, general surgery. Any type practice. Available.
 - Lawrence W. Silvers, M.D., 1350 West Bethune Avenue, Apt. 2002, Detroit, MI 48202. Albany 1976. Also, general surgery. Board eligible. Group, partnership, with medical school affiliation. Available July 1982.
- UROLOGY—Talluri Balaji, M.D., 1926 West Harrison St., Apt. 916, Chicago, IL 60612. Osmania (India) 1973. Solo. Available July 1982.
 - Donald M. Bergner, M.D., 8300 Palmetto Street, Apt. 30, New Orleans, LA 70118. Bowman-Gray 1976. Board eligible. Group, partnership, multi-specialty. Available.
- Jerome Patrick Parnell, M.D., 435 East 70th Street, Apt. 28-C, New York, NY 10021. SUNY-Downstate 1974. Board eligible. Partnership or group. Available.
- Mahendra S. Shah, M.D., 62 Forsythia Lane, Paramus, NJ 07652. Baroda (India) 1968. Board certified. Group or partnership. Available.
- Tahmoures Furoozi, M.D., 3646 Tuscala Avenue, Seaford, NY 11783. Esfahan University (Iran) 1966. Board eligible. Any type practice. Available.
- Albert E. Kaufman, M.D., 2020 Forestdale Drive, Silver Spring, MD 20903. Ghent (Belgium) 1974. Board certified. Group, partnership. Available.
- Dilip R. Patel, M.D., 483 Ocean Parkway, Apt. 4-B, Brooklyn, NY 11218. Baroda (India) 1973. Board eligible. Any type practice. Available.
- Alexander M. Pagnani, M.D., 3510 Avenue H. Apt. 2-B, Brooklyn, NY 11210. Guadalajara (Mexico) 1976. Board eligible. Any type practice. Available July 1982.

LETTERS TO THE JOURNAL

Comment on PRN 1981-66

October 26, 1981

Dear Sir:

I read with interest the editorial by Meyer L. Abrams, M.D., in the October 1981 issue of *The Journal*.

I would agree that the regulation known as PRN 1981-66 is a dangerous regulation. As an otolaryngologist, I reviewed the list of procedures which are considered to be "same-day surgery" procedures, and I must tell you that almost all of those procedures in my practice are done as a hospital inpatient. The patients may be admitted the same day as the surgical procedure, but they stay in the hospital at least overnight. That is particularly true with stapedectomy. I do not know of any surgeon in the country who would do a stapedectomy and allow the patient to leave the hospital immediately after the operative procedure. As far as sinus surgery is concerned, sometimes it may be done as a same-day procedure, but to regulate and mandate that this is the way it is to be done creates an impossible situation which puts the patient at great risk as well as, of course, increasing the liability of the surgeon. What this would mean in my practice is that I would not do these procedures on Medicaid patients if I have to be bound to do them as sameday procedures.

Looking over the list of the other procedures that were included (as otolaryngology often will overlap other specialties), I note parotidectomy, otoplasty, and rhytidectomy also are considered to be same-day surgical procedures. Again, I doubt that there is a surgeon in the country that does parotidectomy as an outpatient operation, very few do otoplasties that way, and almost none does facelifts, especially on an older group of patients, as an in-and-out procedure.

Further, it was my impression that Medicaid does not cover cosmetic procedures anyway, so why have they included on this list operations such as rhinoplasty, rhytidectomy, chin implant, and a variety of other plastic surgical procedures which are considered to be primarily, if not exclusively, cosmetic in nature?

This entire concept is ill-advised from a medical standpoint and, as Dr. Abrams has suggested, probably only represents the beginning of more farreaching attempts at regulation.

It is the decision of the attending surgeons only, in my opinion, as to what is same-day surgery and what is not. Each surgeon may have his own opinions about that and many factors must be considered including the age of the patient, the type of procedure done, the anesthesia that is used, and the fact that some procedures have within them the intrinsic quality that prevents them from being outpatient procedures. This certainly includes stapedectomy and most sinus surgery.

As it is written on the list, what is an ethmoidectomy? Obviously the person who wrote it has no concept that there are various types of ethmoidectomies. There are procedures done through the nose, there are procedures done by external excisions, there are procedures which are bilateral, unilateral, and so on.

Irrespective of those considerations, however, this type of legislation is dangerous—more dangerous to the patient actually than to the physician performing the surgery. It, of course, remains an incredible invasion of the physician-patient relationship.

(signed) Stephen F. Freifeld, M.D.

study of the Health Maintenance Organization published by the AMA Council on Medical Service, it referred to a study by Luft (*N Engl J Med* 298: 1336-1343, 1978), that "the decrease in number of days was effected through fewer admissions and not necessarily through shortened length of stay."

In closing, I find that there is a lack of critical analysis from the medical profession regarding what the various medical plans offer the subscriber.

For example: if one hospital policy is pegged at a utilization of 450 hospital days per 1000 subscribers (HMO) and another hospitalization policy is pegged at a possible utilization of 650 or more (Blue Cross), one should not equate the two policies as having equal hospitalization policies. The subscriber to the first policy must either be of a healthier population or have a doctor more reluctant to hospitalize him in the event of illness, or be sicker in order to qualify for hospital care. If so, the subscriber should be aware of these implications if he buys a cheaper hospital insurance policy (i.e., you get what you pay for).

Another aspect of these insurance programs concerns intraprofessional relationships between physicians and their patients, and of physicians to other physicians. How will this affect those nuances of behavior and attitudes which we have come to equate with the professionalism of medicine?

(signed) Albert Minzter, M.D.

HMO Experience In New Jersey

November 3, 1981

Dear Dr. Krosnick:

Please excuse my delay in responding to your editorial comment regarding your retrospective and current views of the HMO experience in New Jersey.

I thought your position was quite reasonable and well documented. The source of the various vectors in promoting the HMO program in New Jersey was enlightening. Your conclusion regarding the attainment of the HMO goals was a balanced one.

The only point of fact I questioned was the length of patient hospital stay in and out of the HMO. On page 112 of the

T-Tube Removal

November 5, 1981

Dear Dr. Krosnick:

The article on "Bile Peritonitis After Routine T-Tube Removal" by Rosenberg, Konigsberg, and Finkelstein (*J Med Soc NJ* 78:532-533, 1981) in which bile leaked after the removal of the T-tube on the tenth postoperative day, occasioned much discussion at Morristown Memorial Hospital.

The idea of clamping a T-tube to see if bile will pass in the normal fashion into the duodenum, while widely employed, often allows pressure to build up in the ductal system. The removal of a T-tube at this time then encourages a gush of bile from the choledochotomy site.

Our practice is to open the T-tube and give it sufficient time to drain thoroughly over several hours prior to its removal. This permits the pressure in the ductal system to be lowered sufficiently so that when the tube is removed there is little if any bile following it, and the tissues have time to fall together around the choledochotomy site before the pressure in the system builds up again.

Simply removing a T-tube, which has been clamped for some time, encourages the bile under pressure to seek the easiest way out along the tract or into the peritoneal cavity. As Dr. Burnett said, it's a matter of 'hydrodynamics.'

Another important time to allow the T-tube to drain is after a T-tube cholangiogram when, as Dr. Glenn taught, you develop a chemical choledochitis. This requires 24 hours of drainage to avoid the chills and fever and high pressures associated with a clamped T-tube following this procedure.

(signed) Ames L. Filippone, Jr., M.D.

PRN 1981-66, A Reply

November 12, 1981

To the Editor:

It was disappointing to see Dr. Meyer L. Abrams's editorial "PRN 1981-66: A Dangerous Medicaid Regulation*" in the October 1981 issue of *The Journal*.

particularly since the asterisk denotes that he is a member of the Board of Trustees and the origin of the editorial was an item from the proceedings of the Board

Frustrating indeed, considering the number of years that the Division of Medical Assistance and Health Services, represented by its Director with his medical staff, has met with the Committee on Medicaid of the Medical Society of New Jersey. This committee was established to maintain liaison and rapport so that we could have a forum and a mechanism to express and to understand each other's problems. The resultant interaction has provided a means to alleviate problems with both parties and to understand the shortcomings under which each has to operate.

Dr. Abrams, as a member of the Board of Trustees, must have known that his editorial item in question was to be forwarded to the Committee on Medicaid which is charged by the Board "to deal with all Medicaid situations." Why then did he not wait until the Committee had met with us to review what was only a proposal and not an implemented rule? He would have discovered that a just, equitable, and compatible solution was reached at the September 23, 1981, meeting of the Committee—its first meeting following the summer vacation.

At that time, the Division was responsive to the Society's needs and also offered an understandable explanation of the pressures to which we were subject.

In addition, if Dr. Abrams had read the proposal even superficially, he should have noted that there were ample safeguards to the physician's rights for medical decision making as well as for the patient's safety.

The exceptions were of such nature that if there were medical or social reasons to warrant inpatient hospitalization, then all one needed to do was document it on the inpatient chart. There was never any mention or contemplation of a prior authorization mechanism, so one wonders where the editorial writer obtained the thought of the need to know in advance who would require hospital admission.

Also, the New Jersey Register noted that if the situation were one that could have and should have been done as a "same-day surgical" procedure and was not, then the hospital still would be paid, but instead of an inpatient rate it would be on a same-day surgical rate. In perspective, this is more favorable to hospitals than the utilization mechanism now in effect which denies payment for periods of hospitalization not felt to be medically necessary at that level of care.

In conclusion, we do not feel that editorials written in a tar and feather manner and served up to the membership without appropriate background knowledge does either the profession or the Division of Medical Assistance and Health Services a worthy service.

(signed) Thomas M. Russo, Director
S. Eugene Yuliano, M.D.,
Medical Director
Division of Medical Assistance
and Health Services
I. Fulton Erlichman, M.D., Chief
Bureau of Professional and
Technical Services

PERSONAL ITEM

Dr. Areson Named To Fulltime Post

Robert H. Areson, M.D., of Little Falls, has been appointed fulltime Corporate Medical Director of Union Camp Corporation. In his new position, Dr. Areson will develop company health policies, coordinate activities of other company physicians, and provide medical services at Union Camp's Wayne

headquarters. Also, Dr. Areson will serve as the company's representative on industry health committees.

A member of our Essex County component and the American Medical Association, Dr. Areson also serves as Chairman and President of the Camp Nejeda Foundation, which operates a New Jersey camp for diabetic children.

Dr. Areson received his medical training at Yale University; he is board

certified in Internal Medicine and is a Fellow of the American College of Physicians. Among his professional honors are citations from the New Jersey Diabetes Association and from the Board of Trustees and staff of Mountainside Hospital, for his services as president of the medical staff. Dr. Areson has served on numerous committees for MSNJ and has published several articles on diabetes.

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CARDIOLOGY UPDATE...

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Wednesday, February 3, 1982

20 Minute Lectures—Questions and Answers (10 minutes) MODERATOR: Bernard L. Segal, M.D.

CARDIAC TRANSPLANTATION: CASE PRESENTA-TION

Morris N. Kotler, M.D.

EXERCISE IN THE PATIENT RECOVERING FROM AN ACUTE MYOCARDIAL INFARCTION: CASE PRESENTATION

Stuart Snyder, M.D.

THE CARDIOVASCULAR EFFECTS OF EXERCISE TRAINING IN NORMAL SUBJECTS & PATIENTS WITH ISCHEMIC HEART DISEASE David T. Lowenthal. M.D.

AMBULATORY ELECTROCARDIOGRAPHY: CASE PRESENTATION

Gary J. Anderson, M.D.

CASE PRESENTATION: DISCUSSION

Joseph R. Carver, M.D.

3:00 PM—2nd floor New College Building, Hahnemann Medical College and Hospital

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CATEGORY 1 CREDITS CERTIFIED • WINE &
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ME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s), indicated by italics-last line of each item.

ANESTHESIOLOGY

6 Clinical Anesthesia 1982

8 a.m.-4:30 p.m.-New Jersey Medical School, Newark (CMDNJ and AMNJ)

Mar.

- 13- 23rd Annual Postgraduate
- 14 Anesthesia Seminar

Hyatt House, Cherry Hill (NJ State Society of Anesthesiologists and AMNJ)

CARDIOLOGY

2 Pre-Hospital Coronary Care 11 a.m.-Greystone Park Psychiatric Hospital (AMNJ)

17 Cardiac Rehabilitation

9-11 a.m.—Roosevelt Hospital, Menlo Park

(Middlesex General Hospital and AMNJ)

MEDICINE (includes Family, Internal, General Medicine, and Dermatology)

Feb.

3 Pathophysiology and Clinical Management of Bleeding Disorders 9:30-11:30 a.m.—Dover General Hospital

(Dover General Hospital and AMNJ)

3 Medical Grand Rounds

11:30 a.m.-VA Medical Center, East Orange (Endocrinology Section of AMNJ)

3 Dinner Meeting 6-9:30 p.m.-Holiday Inn, East Orange

(Endocrinology Section of AMNJ) 3 Topic to be announced 6:30 p.m.-The Manor, West Orange (Urology Section of AMNJ)

3 Chronic Diarrhea

17 Diabetic Retinopathy 1-2:30 p.m.—Christ Hospital, Jersey City

(Christ Hospital and AMNJ)

3 Pathophysiology and Clinical Management of Bleeding Disorders **Expanded Uses of Gastrointestinal** Endoscopy

9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and AMNJ)

Infection with Mycobacterium

Tuberculosis and other Mycobacterium Tumor Immunity and Immunotherapy

Cardiac Rehabilitation

9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

Endocrine Conference

3:30-5 p.m.—Rotates between Newark 17 Beth Israel Medical Center, College

24 Hospital, Newark, and VA Medical

Center, East Orange (Endocrinology Section of AMNJ)

Medical Grand Rounds

9:30 a.m.-Newark Beth Israel Medical Center

(Endocrinology Section of AMNJ)

4 Nutrition

4-6 p.m.—Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJI

5 Medical Grand Rounds

11:30 a.m.—College Hospital, Newark (Endocrinology Section of AMNJ)

5 Legionnaire's Disease

12 noon-St. Mary's Hospital, Orange (AMNJ)Sarcoidosis

12 noon—Freehold Area Hospital (AMNJ)

Renal Conferences in Nephrology

4-5 p.m.—College Hospital, Newark (Nephrology Society of NJ and AMNJ)

Chemotherapy in Oncologic Disease 2 p.m.-John E. Runnells Hospital, Berkeley Heights (AMNJ)

Cell Aging in Vivo

18 Cell Aging in Vitro

Molecular Biological Aspects of Aging I 4-6 p.m.-Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJ)

12 Recent Advances in Lung Cancer

Recent Advances in Asthma 9-10 a.m.—Helene Fuld Medical Center, Trenton

(Helene Fuld Medical Center)

11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

16 The Intracellular Volume in the Control of Vascular Volume 4-5 p.m.-Middlesex General Hospital,

New Brunswick (CMDNJ and AMNJ) Proper Use of Antibiotics 10:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ)

17 Dermatological Conference 6-9 p.m.-Rutgers Community Health Plan, 57 U.S. Highway 1, New

(CMDNJ and AMNJ)

17 Social Factors and Survival in Heart Disease

4-6 p.m.—Middlesex General Hospital (Rutgers Medical School and AMNJ)

Urinary Tract Infections

8:30-10 a.m.—St. Joseph's Hospital, Paterson

(St. Joseph's Hospital and Medical Center and AMNJ)

Mar.

3 Medical Grand Rounds

11:30 a.m.-VA Medical Center, East Orange (Endocrinology Section of AMNJ)

3 Dinner Meeting

6-9:30 p.m.—Holiday Inn, East Orange (Endocrinology Section of AMNJ) Infection in the Geriatric Patient

Scientific Basis for Environmental

Disease Control Myofascial Trigger-Point Pain

Syndromes

9-11 a.m.—Roosevelt Hospital, Menlo Park

(Middlesex General Hospital and AMNJ)

Endocrine Conferences

10 3:30-5 p.m.—Rotates between Newark 17 Beth Israel Medical Center, College

Hospital, Newark, and VA Medical

Center, East Orange

(Endocrinology Section of AMNJ) 4 Medical Grand Rounds

9:30 a.m.-Newark Beth Israel Medical Center (Endocrinology Section of AMNJ)

4 Molecular Biological Aspects of Aging II

11 Age Associated Diseases I 18 Age Associated Diseases II

25 Age Associated Diseases III

4-6 p.m.-Institute for Medical Research Copewood St., Camden (Institute for Medical Research and AMNJ)

5 Medical Grand Rounds 11:30 a.m.—College Hospital, Newark

(Endocrinology Section of AMNJ) Recognizing and Treating Common Skin

Conditions 12 noon-St. Mary's Hospital, Orange (AMNJ)

Clinical Disorders of Respiratory Control

Bacterial Meningitis

Premalignant Disorders of the Gastrointestinal Tract

26 Platelet Function



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THE JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

8:30-9:30 a.m.—United Hospitals Medical Center, Newark (United Hospitals Medical Center)

Tenth Joint Conference 9 a.m.-3:45 p.m.-Coachman Inn, Cranford (NJ Thoracic Society, NJ Chapter American College of Chest Physicians and AMNJ)

10 Fluid and Electrolyte Imbalance 11:30 a.m.—Columbus Hospital, Newark (AMNJ)

16 Gastrointestinal Bleeding 11 a.m.-Greystone Park Psychiatric (AMNJ)

12 Evaluation of the Patient with Suspected Cancer 9-10 a.m.-Helene Fuld Medical Center Trenton

(Helene Fuld Medical Center)

13 Update-Low Back 8 a.m.-4:30 p.m.—John F. Kennedy Memorial Hospital, Stratford (CMDNJ and AMNJ)

Allergic Disorders II 8 a.m.-4:30 p.m.-John F. Kennedy Memorial Hospital, Stratford (CMDNJ and AMNJ)

15 Cholestasis 12:30-1:30 p.m.—West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ)

16 Systemic Lupus Erythematosus 12 noon-St. Mary's Hospital, Orange (AMNJ)

16 Prostaglandins and Renal Function in Cirrhosis 4-5 p.m.-Middlesex General Hospital, New Brunswick

(Rutgers Medical School and AMNJ)

17 Controversies in Medicine, Cancer 1:30-5 p.m.—Kresge Auditorium, Princeton University (NJ Division, American Cancer Society

and AMNJ) 17 Dermatological Conference 6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Highway 1, New Brunswick

Complex Clinical Problems Allegedly Due to Infections 5-6:30 p.m.—Somerset Medical Center, Somerville (Somerset Medical Center and AMNJ)

(Rutgers Medical School and AMNJ)

Hyperalimentation 12 noon-Freehold Area Hospital (AMNJ)

22 Acid and the Distal Nephron 4-5 p.m.-Middlesex General Hospital, New Brunswick

(Nephrology Society of NJ and A MNJ) 23 Hypernatremic Dehydration 8:30-10 a.m.-St. Joseph's Hospital, Paterson

(St. Joseph's Hospital and Medical Center and AMNJ)

23 Fluid and Electrolytes 8 p.m.-Warren Hospital, Phillipsburg (AMNJ)

Thirtieth Annual Convention/ The Family Physicians in the 80s 26

Hyatt House, Cherry Hill

28 (NJ Academy of Family Physicians)

31 Current Chemotherapy 10:30 a.m.-12 noon-St. Mary's Hospital, Passaic (AMNJ)

31 Tuberculosis Updated 1-2:30 p.m.—Christ Hospital, Jersey

(Christ Hospital and AMNJ)

NEUROLOGY/PSYCHIATRY

Feb.

23

1 Metamorphosis of a Professional Woman 8-10 p.m.-9 Marquette Road, Upper Montelair (Essex Psychiatric Seminar and AMNJ)

1 Seminar in Psychotherapy 8:30-10:30 p.m.-Claridge House II, Apt. 10N East, Verona (NJ Psychoanalytic Society and AMNJ)

Psychiatric Case Conference

7:30-9:30 a.m.—Trenton Psychiatric 16 Hospital (Trenton Psychiatric Hospital and

AMNJ)3 Child Psychiatry Case Conference

10 8:30-10:30 a.m.—Trenton Psychiatric 17 Hospital

24

(Trenton Psychiatric Hospital and AMNJ)

Hypnosis in Medicine and Other 11 Allied Professions

18 3:30-7:30 p.m.—Carrier Foundation,

25 Belle Mead

(Carrier Foundation and AMNJ) **Evaluation of the Aggressive Patient** 10

Monitoring Anti-Depressant Effectiveness 1-3 p.m. - Ancora Psychiatric Hospital, Hammonton (Ancora Psychiatric Hospital and AMNJ)

15 Clinical Problems in Child Psychotherapy 8:30-10:30 p.m.—301 Broad Ave.. Englewood (NJ Psychoanalytic Society and AMNJ)

Depression and Anxiety 5-6:30 p.m.—Somerset Medical Center, Somerville (Somerset Medical Center and AMNJ)

Neurology-Management of Carotid Bruit 12 noon-Freehold Area Hospital (AMNJ)

22 Transient Ischemic Attack 12:30-1:30 p.m.-West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ)

24 Psychological Issues in Care of the Cancer Patient 9-11 a.m.—Roosevelt Hospital, Menlo

Park (Middlesex General Hospital and AMNJ)

24 Suicide, Evaluation, and Management 1:30-3:30 p.m.—Trenton Psychiatric Hospital (Trenton Psychiatric Hospital and AMNJ)

25 Bedside Neurology 8 p.m .- Warren Hospital, Phillipsburg (AMNJ)

Mar.

1 Depression and Divorce 8-10 p.m.—39 Crescent Avenue, Passaic (Essex Psychiatric Seminar and AMNJ)

Seminar in Psychotherapy 8:30-10:30 p.m.-Claridge House II,

Apt. 10N East, Verona (NJ Psychoanalytic Society and AMNJ)

2 Neurology 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

Psychiatry Case Conference

7:30-9:30 a.m.—Trenton Psychiatric 16 Hospital

23

(Trenton Psychiatric Hospital and AMNJ)

Outpatient Psychotherapy of Psychotic Adolescents Anti-Depressants

1-3 p.m.—Ancora Psychiatric Hospital, Hammonton (Ancora Psychiatric Hospital and AMNJ)

Child Psychiatry Case Conference 10

8:30-10:30 a.m.—Trenton Psychiatric 17 Hospital

24

(Trenton Psychiatric Hospital and AMNJ) 31

Psychiatric Lecture Series 12 1:30-5 p.m.—Trenton Psychiatric

Hospital (Trenton Psychiatric Hospital and AMNJ)

15 Clinical Problems in Child Psychotherapy 8:30-10:30 p.m.-301 Broad Ave.,

Englewood (NJ Psychoanalytic Society and AMNJ)

31 Classification and Management of Headaches 9-11 a.m.—Roosevelt Hospital, Menlo Park

(Middlesex General Hospital and AMNJ)

OBSTETRICS/GYNECOLOGY

Mar

10 Intrauterine Growth

8:30-9:30 a.m.—Garden State Community Hospital, Marlton (Garden State Community Hospital and AMNJ)

Semmelweis-Waters Obstetrical/ 13

Gynecological Conference

8 a.m.—Resorts International Hotel, Atlantic City (CMDNJ and AMNJ)

PATHOLOGY

Mar.

23 Cloning

12 noon—Freehold Area Hospital (AMNJ)

PEDIATRICS

Mar.

3 Neonatal Problems 10:30 a.m.—St. Mary's Hospital, Passaic (AMNJ)

4 Pediatric Obesity 9 a.m.-Freehold Area Hospital (AMNJ)

12 Lecture Series-Pediatric Subspecialties 8:15-9:45 a.m.—Overlook Hospital, Summit

(Overlook Hospital/Columbia University College of Physicians and Surgeons and AMNJ)

RADIOLOGY

Feb.

4 Computed Tomography of the Chest

5:30-6:30 p.m.-Morristown Memorial Hospital (Morristown Memorial Hospital and AMNJ)

10 CAT Scan Revisited 1-2:30 p.m.-Christ Hospital, Jersey (Christ Hospital and AMNJ)

Newer Diagnostic Imaging Techniques in Medicine 9:30-11:30 a.m.-Dover General

Hospital (Dover General Hospital and AMNJ)

Pediatric Radiology 5:30-6:30 p.m.—Overlook Hospital,

Summit (Overlook Hospital and AMNJ)

20 New Advances in Vascular Imaging 8:30 a.m.-3:30 p.m.—Sheraton/Newark Airport (Vascular Society of NJ, Radiological Society of NJ, NJ Institute of Ultrasound in Medicine, and AMNJ)

GENERAL SURGERY

Feb.

24 Gallbladder and Common Duct Disease 1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)

3 The Lungs in the Surgical Patient 1-2:30 p.m.—Christ Hospital, Jersey City (AMNJ)

5 Prostate CA 12 noon-Freehold Area Hospital (AMNJ)

10 Statewide Tumor Board Conference Academy of Medicine of NJ, Lawrenceville (Oncology Society of NJ)

23 An Historical View of Surgery at Englewood Hospital 8-10 p.m.—Englewood Club, 115 E. Palisade Ave., Englewood (Englewood Surgical Society, Englewood Hospital, and AMNJ)

SURGICAL SPECIALTIES (includes ENT, Neurosurgery, Ophthalmology, Orthopedic, Plastics, and Vascular Surgery)

Feb.

3 Vascular Surgery 10:30 a.m.-St. Mary's Hospital, Passaic (AMNJ)

16 Osteoporotic Syndromes 12 noon-St. Mary's Hospital, Orange (AMNJ)

17 Dinner Meeting 6:30-10:30 p.m.-The Manor, West Orange

(NJ Society of Colon and Rectal Surgeons)

18 Intramedullary Spinal Cord Tumors 4-5:30 p.m.—College Hospital, Newark (CMDNJ and AMNJ)

19 Pediatric Surgery 7:45 a.m.—Freehold Area Hospital (AMNJ)

23 Orthopedic Surgery Update 8-10 p.m.—Englewood Club, 115 E. Palisade Ave., Englewood (Englewood Surgical Society, Englewood Hospital, and AMNJ)

10 Mesenteric Vascular Disease 9-11 a.m.—Roosevelt Hospital, Menlo (Middlesex General Hospital and AMNJ) 18 Issues in Pediatric Neurosurgery

4-5:30 p.m.-College Hospital, Newark

(CMDNJ and AMNJ) 27 Management of Head Trauma in the 80s 8 a.m.-4:30 p.m.-NJ Medical School, Newark

MISCELLANEOUS

(CMDNJ and AMNJ)

Feb.

2 Malpractice 8 p.m.—Burdette Tomlin Memorial Hospital, Cape May Court House (AMNJ)

216th Annual Meeting May 14-17, 1982

Resorts International, Atlantic City

Daily Schedule

Friday, May 14, 1982

3:30 p.m.-Board of Trustees' Meeting 5:00 p.m.-Delegate Registration

Saturday, May 15, 1982

7:30 a.m.-Delegate Registration

9:00 a.m.-House of Delegates

9:00 a.m.—Message Center, Coffee Lounge, Auxiliary Arts and Hobbies Open

10:30 a.m.—House of Delegates (election)

12:00 noon-Golden Merit Award Ceremony

followed by

Reception for Award Recipients and their Families

1:00 p.m.-Reference Committee Meetings: "A", "B", "C", "D", "E", "F", "G", "H", Monday, May 17, 1982

Constitution and Bylaws

6:00 p.m.-JEMPAC Wine and Cheese Reception

Sunday, May 16, 1982

7:00 a.m.—JEMPAC Breakfast

8:00 a.m.—Registration Opens

9:00 a.m.-Message Center, Coffee Lounge, Auxiliary Arts and Hobbies Open

9:00 a.m.-Scientific Sessions

Allergy; Chest Diseases; Cardiovascular Diseases; Emergency Medicine; Family Practice; Medicine; Orthopaedic Surgery; Pediatrics, Psychiatry; Surgery; Clinical Pathology; Oncology

11:30 a.m.—Luncheons 1:00 p.m.—Scientific Sessions

Spencer T. Snedecor Trauma Oration; Anesthesiology; Dermatology; Gastroenterology and Proctology, Clinical Pathology; Neurosurgery and Neurology; Nuclear Medicine, Radiology; Obstetrics and Gynecology, Urology; Opthalmology; Otolaryngology-Head and Neck Surgery; Physical Medicine and Rehabilitation; Plastic and Reconstructive Surgery; Rheumatism

4:00 p.m.—Annual Meeting—Board of Governors of MIIE

6:30 p.m.—Inaugural Reception 8:00 p.m.—Inaugural Dinner

6:30 a.m.—Essex County Breakfast Caucus 6:30 a.m.—Union County Breakfast Caucus

8:00 a.m.—Registration Opens

9:00 a.m.-Message Center, Coffee Lounge, Auxiliary Arts and Hobbies Open 9:00 a.m.-House of Delegates (to consider Reference Commit

tee reports)

12:00 noon-Message Center, Coffee Lounge, Auxiliary Arts and Hobbies Close

12:00 p.m.-House of Delegates adjourns for lunch

1:30 p.m.-House of Delegates reconvenes

4:00 p.m.—House of Delegates adjourns 7:00 p.m.—Board of Trustees' Dinner-Meeting

OBITUARIES

Dr. Matthew E. Boylan

Matthew Edward Boylan, M.D., the 181st president of the Medical Society of New Jersey (1973-1974), died on November 26, 1981, at Jersey Shore Medical Center, Neptune. A native of Jersey City, born in 1915, Dr. Boylan was graduated from Loyola University in 1941. He did postgraduate work at the School of Aviation Medicine, Randolph Field, Texas, receiving an Aviation Medical Examiner degree in 1942, the same year he became licensed in New Jersey. Dr. Boylan pursued a career in family practice until his retirement in 1980.

Dr. Boylan was a Fellow of the American Geriatric Society, a past president of our Hudson County component, and a member of the American Medical As-

sociation. He served on various committees of the Medical Society for many years. In addition, Dr. Boylan was a member and past president of the James F. Norton Memorial Forum.

A decorated physician in World War II, Dr. Boylan was awarded the African-European-Middle East Campaign Ribbon with nine battle stars and numerous Presidential citations. He was discharged from the United States Army Air Corps in 1946, having attained the rank of major.

Dr. Ira S. Ross

Ira Stanley Ross, M.D., a member of our Essex County component, died on October 2, 1981. A native of Newark. born in 1914, Dr. Ross received his medical degree from Duke University in 1938 and pursued a career in neurology and psychiatry. He was board certified in psychiatry and neurology and a Fellow of the American College of Physicians and American Psychiatric Association. Dr. Ross was affiliated with Beth Israel Hospital in Newark, St. Barnabas Hospital in Livingston, and the VA Hospital in East Orange, He was active in organized medicine and served on various committees of MSNJ, Dr. Ross had been a member of the American Medical Association, the American Neurological Association, and the Academy of Medicine of New Jersey. In 1980, Dr. Ross moved to Lavallette where he maintained a limited practice.

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BOOK REVIEWS

Speech and Speech Disorders In Western Thought Before 1600

Ynez Voile O'Neill. Westport, CT, Greenwood Press, 1980.

It is unusual for a book to appear on a theme that has intrigued mankind from time immemorial, especially if the topic never has been the subject of scholarly study. Yet the valuable monograph that we welcome here brings us, apparently for the first time, a coherent account of the numerous theories which homo loquens has adopted in a search for an explanation of the mechanism of speech, by means of which we alone, of all earthly creatures, have the power of conveying complicated thoughts to others.

Drawing on her exceptional familiarity with the early history of anatomy and the background of the period covered, Professor O'Neill leads us in a fascinating quest for references to speech defects from antiquity through the late Renaissance. We learn from the Edwin Smith Surgical Papyrus (c. 1500 B.C.) that the Egyptians correlated a severe cranial injury with aphonia, and our author proceeds to quote from such diverse

sources as the Bible, Aristophanes, the Church Fathers, the Stoics, and the Venerable Bede in her zeal for completeness.

For the humanistic physician interested in the history of the profession, this book offers, in addition to the main theme, a succinct and thoroughly modern sketch of the schools of medicine and the pivotal figures who dominated the profession from Hippocrates to the Turning Point (c. 1500 A.D.)—when the dominance of Galen was seriously threatened.

I was deeply impressed with Dr. O'Neill's rare ability to impart her profound scholarship gracefully by adding illuminating notes to assist the reader onward. Finally, this book should appeal to laryngologists, otologists, and to all professionals involved in the field of speech therapy.

Morris H. Saffron, M.D.

General Urology 10th Edition

Donald R. Smith, Editor. Los Altos, California, Lange, 1981. Pp. 598. Illustrated. (\$19.50)

In General Urology 10th Edition, Donald Smith has assembled the outstanding basic manual in the field of urology, a book that is being translated into six other languages. Each subject is presented concisely with clear subheadings such as etiology, pathogenesis, and differential diagnosis. The material is well referenced with a complete table of citations at the end of each chapter.

Since the last edition in 1978 there has been considerable updating of the 35 original chapters, in addition to a new chapter on urodynamics. The book includes not only the basic disorders of the organs of the urinary tract but also chapters on diagnostic technics such as sonography and CT Scanning plus renovascular hypertension, the urologic aspects of andrology, and the effects of the psyche on renal and vesicle function.

The comprehensive nature of this book makes it an ideal addition to the library of the medical student, the generalist, and the urological specialist. The first two will gain an excellent understanding of the field of urology from this well-written book; the specialist will find a wealth of information for review, a source of current references, and even some new material that is missed in usual reading.

Robert H. Stackpole, M.D.

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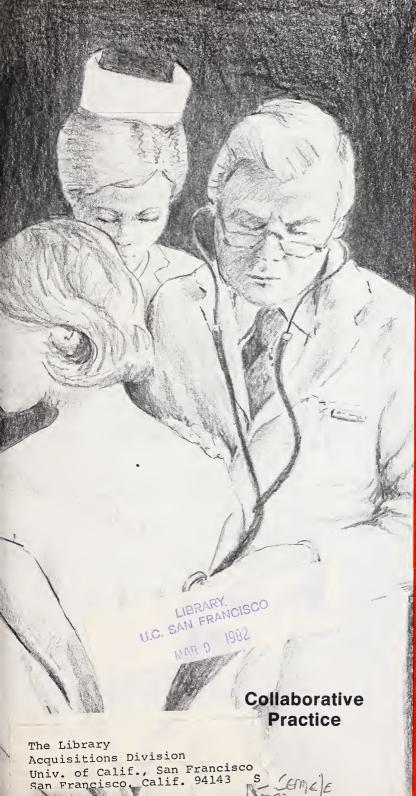
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Halpern is past president of the New Jersey Chapter of the International Association of Financial Planners, is a frequent lecturer in the areas of investment finance and tax reduction before various professional and industrial groups, and often serves as a consultant to several accounting and legal firms.

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Journal of the Medical Society of

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85 PROFESSIONAL LIABILITY COMMENTARY

EDITORIALS

- 89 Collaborative Physician-Nurse Practice
- 91 Research Definitions
- 91 Managing Editor Retired
- 92 JEMPAC REPORTORIAL

ARTICLES

- 95 Medical Evaluation and Treatment of Eighth-Nerve Disorders in the Learning Disabled Child S. T. Westerman, M.D., L. M. Gilbert, M.A., L. G. Madusky, Shrewsbury
- O Superior Vena Cava Obstruction Secondary to Retrosternal Goiter S. Fieber, M.D., J. D. Cohn, M.D., J. Bastides, M.D., B. Gillette, M.D., Livingston

REVIEW ARTICLE

109 When is Hypertension Due to Pheochromocytoma? L. F. Amorosa, M.D., and A. K. Khachadurian, M.D., Piscataway

STATE OF THE ART

114 Radiology of Pheochromocytomas L. F. Amorosa, M.D., J. K. Amorosa, M.D., J. L. Nosher, M.D., Piscataway, R. Donnelly, M.D., Summit

CASE REPORTS

- 121 Infant Botulism in Central New Jersey N. Amaram, M.D., B. Patel, M.D., P. S. Papageorgiou, M.D., H. H. Kesarwala, M.D., New Brunswick
- 125 Electrodiagnosis in the Evaluation of Progressive Hypotonia in Infancy with Particular Reference to Infant Botulism G. O. Schrager, M.D., M. Diamond, M.D., S. Z. Rosnowski, M.D., S. P. Waran, M.D., Summit
- 131 Pseudodigitation in Ectopic Ossification
 L. Gould, M.D., J. M. Shah, M.D., M. Patel, M.D., G. T. Curtis, M.D., Newark
- 134 ANNUAL MEETING HOUSING APPLICATION
- 139 PEDIATRIC BRIEFS

PERSONAL OPINION

141 A Word by Any Other Word: Euphemism A. Bernstein, M.D., East Orange

DOCTORS' NOTEBOOK

- 143 Trustees' Minutes: November 15, 1981
- 149 UMD Notes
- 151 MSNJ Auxiliary
- 151 Women Physicians in New Jersey
- 151 Physicians Seeking Location in New Jersey
- 157 LETTER TO THE JOURNAL
- 159 CME CALENDAR
- 164 OBITUARIES
- 166 BOOK REVIEW

On The Cover

The concept of collaborative physician-nurse practice may be the greatest threat to the traditional doctor-patient relationship since Hippocrates. Read the editorial on Page 89. (Cover illustration by Susan Cermele.)

Volume 79 Number 2

Information for Readers and Contributors

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CONTENT

The education content of each issue appears as scientific articles, based on research, original concepts relative to epidemiology of disease, and treatment methodology; case reports, based on unusual clinical experiences; review articles; clinical notes, succinct items on some aspect or new observation or technique of a case experience; and special articles, which may include evaluations, policy and position papers, and reviews of nonscientific subjects. Material submitted here is for exclusive publication in The Journal. Upon request of the author, the Committee on Publication may give permission to authors of original material to reprint articles elsewhere with the appropriate credit to The Journal. The principal aim in the preparation of contributions should be relevance to diagnosis and treatment and to education of patients and professionals. Preference will be given to professional authors from New Jersey and to out-of-state lecturers who submit a suitable manuscript based on a presentation made in New Jersey.

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Accident Facts. Chicago, Illinois, National Safety Council, 1974.

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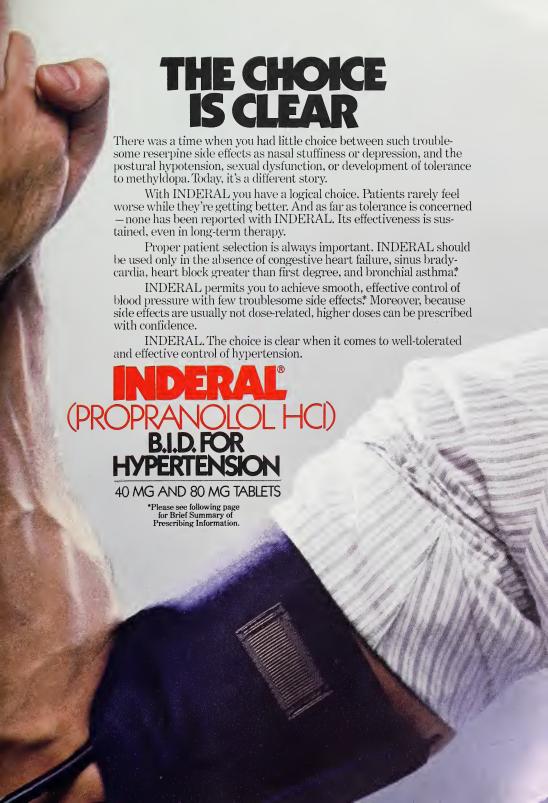
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BEFORE USING INDERAL (PROPRANOLOL HYDROCHLORIDE), THE PHYSICIAN SHOULD BE THOROUGHLY FAMILIAR WITH THE BASIC CONCEPT O

ADRENERGIC RECEPTORS (ALPHA AND BETA), AND THE PHARMACOLOGY OF

CONTRAINDICATIONS

INDERAL is contraindicated in: 1) bronchial asthma; 2) allergic rhinitis during the pollen season; 3) sinus bradycardia and greater than first degree block; 4) cardiogenic shock, 5) right ventricular failure secondary to pulmonary hypertension; 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachvarrhythmia treatable with INDERAL, 7) in patients on adrenergic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs.

WARNINGS

CARDIAC FAILURE: Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta-blockade always carries the potential hazard of further depressing myocardial contractility and precipitating cardiac failure. INDERAL acts selectively without abolishing the inotropic action of digitalis on the heart muscle (i e., that of supporting the strength of myocardial contractions). In patients already receiving digitalis, the positive inotropic action of digitalis may be reduced by INDERAL's negative inotropic effect. The effects of INDERAL and digitalis are additive in depressing AV

IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure. In rare in stances, this has been observed during INDERAL therapy. Therefore, at the first sign or symptom of impending cardiac failure, patients should be fully digitalized and/or given a diuretic, and the response observed closely: a) if cardiac failure continues, despite adequate digitalization and diuretic therapy, INDERAL therapy should be immediately withdrawn, b) if tachyarrhythmia is being controlled, patients should be maintained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of na and, in some cases, myocardial infarction, following abrupt discontinuation of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when INDERAL is prescribed for angina pectoris, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given propranolol for other indications

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long term use have not been adequately appraised. Special consideration should be given to propranolol's potential for aggravating congestive heart failure. Propranolol may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing propranolol slowly. Propranolol does not distort thyroid function

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg

IN PATIENTS DURING ANESTHESIA with agents that require catecholamine release for maintenance of adequate cardiac function, beta blockade will impair the desired inotropic effect. Therefore, INDERAL should be titrated carefully when administered for arrhythmias occurring during anesthesia

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of pheochromocytoma, INDERAL should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emer-gency surgery, since INDERAL is a competitive inhibitor of beta receptor agonists, its effects can be reversed by administration of such agents, e.g., isoproterenol or levarterenol. How ever, such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has also been reported

IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-CHITIS, EMPHYSEMA), INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of

beta receptors

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA. Because of its betaadrenergic blocking activity, INDERAL may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially important to keep in mind in patients with labile diabetes. Hypoglycemic attacks may be ac companied by a precipitous elevation of blood pressure.

USE IN PRÉGNANCY. The safe use of INDERAL in human pregnancy has not been established. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or fetus be weighed against the expected therapeutic benefit.

Embryotoxic effects have been seen in animal studies at doses about 10 times the maximum recommended human dose. **PRECAUTIONS**

Patients receiving catecholamine depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine blocking action of this drug. may then produce an excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharmacologic activity of INDERAL may produce hypotension and/or marked bradycardia resulting in vertigo, syncopal attacks, or orthostatic hypotension.

As with any new drug given over prolonged periods, laboratory parameters should be observed at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function.

ADVERSE REACTIONS Cardiovascular bradycardia, congestive heart failure, intensification of AV block; hypoten sion; paresthesia of hands; arterial insufficiency, usually of the Raynaud type; thrombocyto-

Central Nervous System lightheadedness; mental depression manifested by insomnia lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short term memory loss, emotional lability, slightly clouded sensorium,

and decreased performance on neuropsychometrics

Gastrointestinal nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis

Allergic: pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress

Respiratory, bronchospasm Hematologic. agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura Miscellaneous: reversible alopecia. Oculomucocutaneous reactions involving the skin

serous membranes and conjunctivae reported for a beta blocker (practolol) have not been conclusively associated with propranolol. Clinical Laboratory Test Findings: Elevated blood urea levels in patients with severe heart

disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase

DOSAGE AND ADMINISTRATION ORAL

HYPERTENSION-Dosage must be individualized. The usual initial dosage is 40 mg INDERAL twice daily, whether used alone or added to a diuretic. Dosage may be increased gradually until adequate blood pressure is achieved. The usual dosage is 160 to 480 mg per day. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks

While twice-daily dosing is effective and can maintain a reduction in blood pressure throughout the day, some patients, especially when lower doses are used, may experience a modest rise in blood pressure toward the end of the 12 hour dosing interval. This can be evaluated by measuring blood pressure near the end of the dosing interval to determine whether satisfactory control is being maintained throughout the day. If control is not adequate, a larger dose, or 3 times daily therapy may achieve better control

PEDIATRIC DOSAGE

At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

INTRAVENOUS

The intravenous administration of INDERAL has not been evaluated adequately in the management of hypertensive emergencies.

OVERDOSAGE OR EXAGGERATED RESPONSE

IN THE EVENT OF OVERDOSAGE OR EXAGGERATED RESPONSE, THE FOLLOWING MEASURES SHOULD BE EMPLOYED. BRADYCARDIA-ADMINISTER ATROPINE (0.25 to 1.0 mg): IF THERE IS NO RE

SPONSE TO VAGAL BLOCKADE, ADMINISTER ISOPROTERENOL CAUTIOUSLY CARDIAC FAILURE—DIGITALIZATION AND DIURETICS.

HYPOTENSION—VASOPRESSORS, e.g., LEVARTERENOL OR EPINEPHRINE (THERE IS EVIDENCE THAT EPINEPHRINE IS THE DRUG OF CHOICE)

BRONCHOSPASM-ADMINISTER ISOPROTERENOL AND AMINOPHYLLINE

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and 1,000 Also in unit dose package of 100. No. 468—Each scored tablet contains 80 mg of propranolol hydrochloride, in bottles of 100

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INJECTABLE

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7526/581



Professional Liability Commentary*

Featuring: Emergency Medical Care Attitudes

A casual attitude is a prime factor in the increase of emergency medicine lawsuits. A casual attitude, an undesirable side effect of professionalism, can diminish the quality of any professional activity. In the emergency department, such attitudes especially are dangerous because contact with the patient usually is limited to one time. The opportunity to reconsider diagnosis and treatment is not possible.

With the appearance of fulltime emergency room physicians and nurses with improved skills, there has been a concomitant increase in the level of expectation by patients. Unfortunately, the major thrust of emergency department "improvement" has been in the area of resuscitation and highly technical diagnostic procedures.

A review of continuing education courses for physicians and nurses shows that emphasis is directed toward the diagnosis and treatment of life-threatening injuries and illnesses. There is minimal teaching in the care of nonlife-threatening matters and equally important aspects of administrative care such as referral patterns and backup and followup procedures.

Claims analysis data collected by St. Paul Fire & Marine Insurance Co. from 1973 to 1979, a period of rapid proliferation of specialized emergency physicians and nurses, revealed that 41 percent of the emergency medicine claims involved situations that hardly were dramatic and rarely life-threatening. Rather, they involved such situations as fractures, missed foreign bodies, missed tendon lacerations, and missed heart attacks—all masquerading as minor matters.

We agree that the most seriously injured and ill patients should be treated first. However, such a management philosophy is not viable if it is used to excuse inadequate care of the nonemergency patient. This allows development of casual attitudes and a lack of attention in the care of the majority of patients.

A casual attitude interferes with the required intellectual exercise necessary in the proper workup of a patient. The result may be substandard care. Documentation suffers from a casual attitude as well because the need for detailed records is not perceived. Referral and followup procedures may be affected for the same reasons.

One case, for example, that could have resulted in an incorrect diagnosis involved a 25-year-old man with pain in his sternum and right upper rib cage allegedly sustained in a car accident. The man was taken to an emergency room. Xrays were taken and interpreted by a radiologist to be negative for fracture. But the man's pain persisted, and he returned to the same emergency room the following week. When he asked for additional pain medication, the emergency staff thought the man was an addict seeking a fix. Despite the negative x-ray the previous week, careful reexamination by an emergency physician revealed a tender area of the sternum and two tender areas on the rib cage. The physician ordered a second set of x-rays, which indicated a fracture of the sternum and fractures of the third and fifth ribs. Careful comparison with the first x-rays revealed the same findings, indicating an erroneous reading during the

man's initial visit. This case is an example of a nonemergency patient who could have been misdiagnosed as a drug-seeking addict if the emergency staff had been willing to accept an easy conclusion. A truly casual attitude on the part of the emergency room staff would have precluded the need for a detailed reexamination. Instead, the patient was reexamined completely and given the benefit of a new workup that resulted in a correct diagnosis.

A casual attitude in any department of a hospital may be supported and enhanced by the hospital's corporate philosophy. Throughout institutional administrative literature we read of the abuse of the emergency system by patients who do not need the specialized services that emergency departments provide. Unfortunately, such perceptions are retained in many hospitals and become a powerful basis for negative emergency department attitude concerning the nonemergency patient.

In a recent survey, one emergency department x-ray technician told me that there were no problems in his department except for its use by the "abusers"—his designation for the nonemergency patient. I do not think he considered where he might be working if 80 percent of the patient load were to vanish! Relieving this man of his duties will not solve the problem if a hospital's corporate philosophy is that the nonemergency patient is unwanted or, at best, merely is tolerated.

Attitude determines performance. It pervades all facets of the delivery of health care. A casual or deleterious attitude will impede or prevent adequate implementation of corrective action. Although quality assurance systems for the evaluation and correction of adverse performance, medical record peer review, and generic screening are well developed and are being improved all the time, emergency departments with good quality assurance and risk management activities still experience claims and lawsuits involving nonemergency patients.

Quality assurance and risk management in the emergency department must begin with attitude adjustment at the department level. Attitude evaluation is performed best by studying the medical records of nonemergency patients in regard to: waiting time; sufficiency of nursing notes; sufficiency of documentation by the physician and use of pertinent negatives; detailed history and physical notes; and sufficiency of consultative and followup administrative arrangements. Discovery of basic attitude problems in the emergency room comes from an analysis of records and attention to patient complaints.

If a review of the records demonstrates that substandard care is attitude related and not knowledge related, corrective measures directed at attitude adjustment must be instituted. Punitive measures such as reprimands, transfers, suspensions, or dismissals are potent management tools that are

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department and Assistant Director and Editor.

effective immediately, but carry strong career consequences for medical professionals. Instead, individual counseling should be attempted so that attitudes may be corrected without disrupting the emergency department.

In the final analysis, it appears that quality assurance and risk management activities in the emergency department will find and gather considerable data that reflect less than desirable levels of care, particularly involving the non-emergency patient. Unfortunately, attempts at corrective action may fall on ears comfortably in agreement, but attitudinally defensive, and, as a result, minimally responsive. In such cases, a casual attitude precludes corrective action.

The nonemergency patient of the 1980s must be made welcome by the hospital and the emergency department and must not be viewed in a casual manner. Otherwise, we shall see increasing numbers of malpractice claims and suits despite the best efforts at problem identification and quality assurance.

This article was reprinted from the October, 1981, Malpractice Digest published by St. Paul Fire & Marine Insurance Co.,

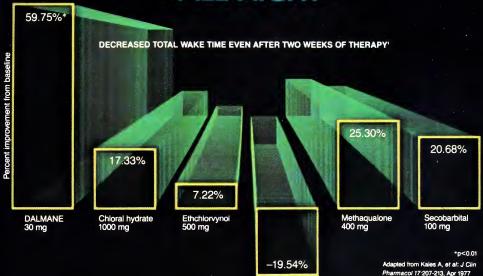
and written by John R. Tanner, M.D., J.D., M.S., an emergency department physician and a consultant on risk management, quality assurance, and emergency department process and procedure.

SIX MOST FREQUENT ER CLAIMS ALLEGATIONS

The St. Paul Fire & Marine Insurance Company's claims analysis system reports the most frequent emergency room allegations for professional liability claims as follows:

- 1. Failure to diagnose a fracture or dislocation—66 claims (12.7 percent).
- 2. Failure to diagnose a foreign body—42 claims (8.1 percent).
- 3. Failure to diagnose appendicitis—26 claims (5.0 percent).
 - 4. Failure to diagnose infection—24 claims (4.6 percent).
- 5. Failure to diagnose myocardial infection—24 claims (4.6 percent).
- 6. Improper treatment due to insufficient therapy—24 claims (4.6 percent).

EFFECTIVE ALL NIGHT



WITH AN UNSURPASSED RECORD OF EFFICACY AND SAFETY

The efficacy of Dalmane (flurazepam HCI/Roche) has been documented in 185 studies involving 9141 patients suffering from one or more of the three major forms of insomnia—difficulty falling asleep, staying asleep and sleeping long enough.²

Relative safety was demonstrated in a large study of 2542 hospitalized medical patients. Only 3.1% of these patients reported adverse reactions—predominantly unwanted residual drowsiness. None of the reactions were considered serious by attending physicians.³

FOR SLEEP WITHIN 17 MINUTES² AND NO WORSENING OF SLEEP ON DISCONTINUATION

Rapid sleep induction, within 17 minutes on average, sets the stage for insomnia relief. And, after discontinuation of Dalmane for periods ranging up to 14 nights, no worsening of sleep compared with baseline was observed.

Should insomnia recur, the patient may require guidance in setting up a regular sleep program to help

provide the optimum environment for the onset of natural sleep. If hypnotic therapy is required, it should be given for the shortest time at the lowest effective dose to achieve the desired goal.

Consider other medications the patient may be taking (including alcoholic beverages) and be aware of possible drug interactions. Please note that patients should be treated for underlying physical or psychological factors before therapy with a sleep medication is undertaken.

DALMANE® © flurazepam HCI/Roche

THE STANDARD OF HYPNOTIC EFFICACY FROM THE LEADER IN SLEEP RESEARCH



Glutethimide 500 mg

Please see reverse side for a summary of product information.



SLEEP-SPECIFIC DALMANE® flurazepam HCI/Roche

One 15-mg capsule h.s.-recommended initial dosage for elderly or debilitated patients. One 30-mg capsule h.s.-usual adult dosage (15 mg may suffice in some patients)

THE STANDARD FOR HYPNOTIC EFFICACY WITH IMPORTANT ADDED BENEFITS

- Well tolerated^a
- No chemical interference with many commonly ordered laboratory tests, including triglycerides, uric acid, glucose, SGOT, alkaline phosphatase and total protein⁵⁶ (See adverse reactions section of complete product information.)
- Compatible with chronic warfarin therapy; no unacceptable fluctuation in prothrombin time reported.

UNLIKE NONSPECIFIC MEDICATIONS USED FOR SLEEP

Tricyclic antidepressants

- -which are not sleep specific,⁹ yet are sometimes used in nondepressed patients for sleep
- -which can cause transient insomnia in the elderly¹⁰
- –which can require careful monitoring in cardiovascular patients¹⁰
- -which have strong anticholinergic effects10

Antihistamines

- -which are not reliable sleep-inducing agents"
- -which may produce stimulation instead"
- –which have anticholinergic effects¹¹

Major tranquilizers

- –whose side effects may be troublesome for nonpsychotic patients¹²
- -where tolerance for sedation appears rapidly¹²

Dalmane does not cause significant worsening of sleep beyond baseline levels upon discontinuation.⁴

References: 1, Kaies A, et al. J Clin Pharmacol 17 207-213, Apr 1977 2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ 3, Greenblatt DJ, Allen MD, Shader RI. Clin Pharmacol Ther 21 355-361. Mar 1977 4. Kaies A, et al. Clin Pharmacol Ther 18:356-363. Sep 1973-5. Moore JD, Viensmann L. J Clin Pharmacol 16:241-244, May-Jun 1976 6. Spiegel HE 1973-5. Moore JD, Viensmann L. J Clin Pharmacol 16:241-244, May-Jun 1976 6. Spiegel HE Amdon EL. Interaction of benzodishamn-La Roche Inc., Nutley NJ 7, Robinson DS, Amdon EL. Interaction of benzodishamn-La Roche Inc., Nutley NJ 7, Robinson DS, Baidessamm RJ, Drugs and the treatment of psychiatric disorders, chap in Goodman and Glimans The Pharmacological Basis of Therapeutics, et 6. New York, Macmillan Publishing Co Inc., 1980, pp. 391-447 10. Cole JD, Davis MP. Antidepressant drugs, chap 31.2, in Comprehensive Textbook of Psychiatry II, edited by Frieedman AM, Kaplan HI, Sadock BJ, et al. Spiegel Spiege

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening, in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for al least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, hearburn, upset stomach, nausea, vomiting, diarrhea, constipation, Gl pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, brurning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect.

Adults: 30 mg usual dosage; 15 mg may suffice in some patients. Elderly or debilitated patients: 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



EDITORIALS

Collaborative Physician–Nurse Practice: Is This the Time?

If the title of this editorial is provocative to the reader, read on. You may not be familiar with the following concepts, but you should be:

- · Primary Nursing
- · Joint or Collaborative Practice
- · Integrated Charting
- · Expanded Nurses' Decision Making
- Joint Patient Care Review and Collaborative Practice Committee

This writer, in the company of the Associate Administrator and the Director of Nursing of Mercer Medical Center, had the opportunity to attend an American Hospital Association-sponsored conference in Chicago entitled "Physicians and Nurses: Strategies for Achieving a More Productive Alliance."

The presentations, discussions, debates, and concepts were provocative yet stimulating. The speakers were physicians, nurses (with advanced degrees who have leadership roles in the national nursing movement), and hospital administrators. The titles of the lectures were as follows: "Humanizing the Hospital"; "The 80s: The Timeliness of Primary Nursing"; "What Does Physician-Nurse Cooperation Mean to the Medical Staff?"; "Organizational Changes That Facilitate a Productive Alliance"; and "An Approach to Collaborative Practice."

The program culminated with a psychosocial drama entitled "Strategies for Conflict Resolution." This happening seemed to engender more conflicts than it resolved.

WHAT IS IT ALL ABOUT?

In the olden days, many nurses were looked upon by physicians as servants, attendants, home "health visitors," midwives, ward "sisters," playthings, and, even, marital candidates. It was the insight, self-sacrifice, hard work, leadership, bravery, and intelligence of Florence Nightingale (the second daughter of wealthy and cultured English parents) that led to modern nursing. Nightingale's work began to flourish when she was sent to the Crimean War front in 1854 by the British Secretary of War, Sidney Herbert. Nightingale's efforts for nursing never ended until her death in 1910. One can visualize her ghost shouting "Bravo" and "Right on" to her nursing sisters of the 1980s who now are beginning to demand a collegial relationship with the medical profession. The elements of collaborative practice follow.

PRIMARY NURSING

Primary nurses are registered nurses. Each patient has a single primary nurse (although primary nurses will have a caseload of "primary patients") whom the patient regards as his nurse in exactly the same way as he* regards the physician

as his doctor. The primary nurse plans, organizes, administers, and takes responsibility for the patient's nursing regimen with little or no assignment of duties to others from admission to discharge. She* is identified by patients, physicians, nurses, health professionals, and subprofessionals as being responsible completely for the nursing care of her patients. The primary nurse administers and monitors the medical regimen prescribed by her patient's physician. The purpose of primary nursing is "to encourage a more personal patient-nurse relationship that is less disorganized for the patient and for the attending physician." Thus, the professional accountability for the nursing care of a given patient is assumed by a designated nurse.

JOINT OR COLLABORATIVE PRACTICE

Collaborative practice refers to the concept of physicians and nurses working together as a team in the care of their patient. The spirit of collaborative practice is deemed to be a collegial relationship between physician and nurse. The nurse assumes increased responsibility for the patient with some reduction in the physician's supervision of her clinical decision making. The physician is able to identify his patients' primary nurses, whose professionalism he understands and respects. The nurse and physician "consult with each other to assure that their patients receive an integrated spectrum of therapy, care, and rehabilitation."

INTEGRATED CHARTING

The integrated patient record differs from the traditional chart in the "progress notes" section. Charts will need to be redesigned so that both physicians and nurses can make entries on the same progress sheets. The concept hopes to eliminate the burden of unnecessary search and scrutiny of the records during daily rounds as well as during case review. A unity in the recording of progress notes (e.g. by using the problem-oriented medical records system) would seem like a desirable—even essential—aspect of integrated charting.

EXPANDED NURSES' DECISION MAKING

Contrary to the traditional concept of the nurse-patient relationship which is dependent upon responses to physician decisions and orders, the expanded role of the primary nurse envisions initiation and modification of nursing measures by the primary nurse with little or no physician intervention. Individual clinical decision making by the primary nurse for

^{*}It should be understood that throughout this editorial "he" can be interchanged with "she" and "she" can be interchanged with "he."

her patient takes place without overt, outside direction, although she may seek advice, consultation, or other assistance in the decision-making process when necessary. Physicians need not fear that such nurses will "practice medicine," because a decision-making consultation, discussion of the patient care regimen, scrutiny of the nursing activities intitiated and implemented by the primary nurse, and instruction as to diagnosis, pathology, and therapy normally will take place during daily patient rounds. The nurse must commit herself to accept the responsibilities of direct patient care when she agrees to participate in a primary care nursing program.

JOINT PATIENT CARE REVIEW AND COLLABORATIVE PRACTICE COMMITTEE

Before primary nursing can get off the ground, the institution must have a Collaborative Practice Committee made up of equal numbers of nurses and physicians who wish to improve the professional relationship between the nursing staff and medical staff members. The Committee will be charged with the responsibilities of developing ground rules: identifying problems involving patient care and nurse-physician interactions; developing creative solutions to problems; and recommending new programs and policy changes in relation to patient care. This type of committee is a natural forum in which to address mutual issues including staff morale, proper utilization of hospital resources, the expectations of each profession and the pressures and stresses inherent in each, and how to relieve professional pressures. The Committee will deal with such knotty problems as the integrated medical and nursing patient records, the limits to what can be ordered and implemented by the primary nurse without a physician's order, and the endless hospital policies and practices that affect patient care and touch on both the physician and the nurse.

IS PRIMARY CARE NURSING FEASIBLE?

To a large degree, many elements of primary care nursing already exist in the critical care units-ICU and CCU-of most hospitals. Nursing orders are initiated by the physicians through standing orders, written and verbal orders, and printed algorithms, but nurses are given a good deal of leeway and freedom to make changes that are deemed critical without prior approval or through telephone consultation. Each patient, at least on the day shift, has a nurse whom he can identify by name and whom he perceives as his nurse. Procedures such as weaning patients off intravenous antiarrhythmic drugs like lidocaine or antihypotensive medications, modification of the diet, and emergency treatment of hypoglycemia or seizure disorders are accepted today as standard practice. Initiation of a "Code" procedure usually is the result of nursing initiative—and it may be a lifesaving decision!

WHAT ARE THE POSITIVE ASPECTS OF COLLABORATIVE PHYSICIAN-NURSE PRACTICE?

Patients in institutions where this model of patient care has been initiated respond with great enthusiasm. They feel that primary care nurses know more about their problems, are responsible for their care, and act as their ombudsman with physicians and other nurses; they sense a higher level of care and treatment.

Nurses in such units express high job satisfaction and pride in their new collegial relationship and their status as valued members of the patient care team. They feel respected and

needed in the relative independence of their autonomous and assertive new status.

Physicians who participate in this new patient care arrangement soon feel comfortable and less stressful when their patient's care is shared with a competent, skilled, and discreet primary nurse whom they trust. Such nurses can play a special, new intermediary role between the physician and the family, between the patient and consultants, and between the patient and the attending physician for the ultimate good of the patient, nurse, and doctor. Physicians soon recognize this. Resident physicians and recently trained young physicians accept and enjoy the relationship rather promptly and tend to communicate quite easily at this level of practice.

Administrators feel positive about collaborative physican-nurse practice because they recognize objectively the interdependence of the two professions. They perceive that administration looks better under this arrangement when it is successful. The cost-benefit ratio or the cost effectiveness is not clear as yet, but they see this new role for nurses as a means to keep down the nursing shortage. It stimulates retired nurses to return to practice and encourages active nurses to postpone retirement.

WHAT PROBLEMS ARE TO BE ANTICIPATED?

Obviously, all physicians and all nurses will not have the skills, knowledge, temperament, personality, drive, communication abilities, self-security, and professional trust to participate in a joint practice arrangement. Some physicians will agonize over the potential for increased medical-legal culpability. They may resent the interposition of another professional with different training, skills, and knowledge between them and their patients. The idea of a nurse having her patient and the patient having his nurse may be anathema to some physicians. Nurses predictably will have some dissatisfaction with monetary compensation under the traditional system while they have a special role under a new system.

The positions of state legislatures through nurse practice acts, licensing boards, malpractice insurance carriers, national medical and nursing organizations, hospital associations, and hospital accreditation committees are to be determined.

SUMMARY

The concept of collaborative physician-nurse practice may be the greatest threat to the traditional doctor-patient relationship since Hippocrates. Whether it will work in 0.1 percent or 100 percent of the institutions in the future is unknown. For the good of their patients, doctors must be willing to listen, to evaluate, and to make informed judgments as to the feasibility of such a system. Out-of-hand rejection for reasons of self interest should not be allowed to emanate from any one of us. An open mind is called for in this delicate but crucial matter. Is this the time? We'll soon find out.

A.K

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- 1. Guidlelines for establishing joint or collaborative practice in hospitals. The National Joint Practice Commission of the AMA and the ANA. Chicago, 1981.
 - 2. Collaborative practice. Hospital Medical Staff 10:3, 1981.
- 3. Physicians and nurses: Strategies for achieving a more productive alliance. Division of Medical Affairs, American Hospital Association. September, 1981, Chicago.

Research Definitions

One of the "fun things" an editor does is to try and figure out what an author is saying in the phrases that carefully are laced with ambiguity. What is the hidden meaning or truth between the lines?

The following item was submitted by a research pharmacologist who has written and reviewed many scientific articles for national and international journals.

The following phrases, frequently found in technical writings, are defined for your edification and enlightenment. This list was plagiarized from some unknown worker who evidently had read too many scientific papers.

"It has long been known "—I haven't bothered to look up the original reference.

"... of great theoretical and practical importance."— Interesting to me.

"While it has not been possible to provide definite answers to these questions "—The experiment didn't work out, but I figured I should get a paper out of it anyway.

"... of extremely high purity, superpurity."—Composition unknown except for the exaggerated claims of the supplier.

"Three of the samples were chosen for detailed study."—
The results on the others didn't make sense and were

"... accidentally stained during mounting."—Accidentally dropped on the floor.

"... handled with extreme care during the experiments."

—Not dropped on the floor.

"Typical results are shown."—The best results I ever had are shown.

"... presumably at longer times."—I didn't take time to find out.

"These results will be reported at a later date."—I might get around to this sometime.

"It is believed that . . . "-I think.

"It is generally believed that . . . "—A couple of my friends think so too.

"It might be argued that "—I have such a good answer for this objection that I shall now raise it.

"It is clear that much additional work will be required before a complete understanding "—I don't understand it

"... correct within an order of magnitude."—Wrong.

"It is to be hoped that this work will stimulate further work in the field."—This paper is not very good, but neither are any of the others on this miserable subject.

"Thanks are due to Joe Glotz for assistance with the experiment and to John Schwartz for valuable discussions."

—Glotz did the work and Schwartz explained it to me.

When you read your medical journals, look for the meanings behind the phrases. But, by all means, be careful what you write, because we all are scrutinizing it in a new way.

A.K.

Managing Editor Retired

Marjorie D'Arcy Treptow, after nearly a quarter of a century of service to MSNJ, has retired. Mrs. Treptow has been the strength behind the typewriter and glue pot; she has put *The Journal* together, month after month, since 1966.

Marjorie, a Beaver College graduate in English, filled the position of Managing Editor to the hilt. The job description hardly does justice to the many functions she performed—not the least of which was to teach the Editor his job and to wipe egg off his tie, editorially, before others had a chance to notice. She knew her craft and had boundless pride in the end product; yet, she always was ready to improve it.

Marjorie was the only child of Dr. and Mrs. Walter E. D'Arcy. Dr. D'Arcy was a surgeon at the old McKinley Hospital (now Helene Fuld Medical Center in Trenton). He was the Medical Director of McKinley Hospital, President of the Mercer County Medical Society, and President of Trenton's Board of Education.

Mrs. Treptow first came to work at the Medical Society of New Jersey in 1938 and served as Secretary to the Executive Officer, to the Committee on Legislation, and to the Board of Trustees until 1947. Marjorie returned to MSNJ in 1966 and served as Editorial Secretary, Assistant Editor, and Managing Editor of *The Journal* until she retired in January, 1982.

Why retire? She has a daughter, Katharine, a son, William, Jr., two grandchildren, and a nice guy to whom she has been married for many years, William E., Sr. She'll have lots to do

Marjorie Treptow waited to retire until both *The Journal* and the Editor were in good enough shape for her to walk away. She doubtlessly will miss her duties as much as we will miss her.

The Medical Society of New Jersey and *The Journal* staff salute Marjorie Treptow for her contribution and wish her many years of good health and happiness. A.K.

JEMPAC REPORTORIAL*

AUXILIARY TO ASSIST JEMPAC

The Auxiliary Board of Directors, at its November meeting, voted to assist JEMPAC in acquiring the state and federal voting districts of the physician-members of the Medical Society of New Jersey.

The Auxiliary, working through its county societies, will formulate a list of physician-member voting addresses. This information will permit the Auxiliary to approach the county board of elections for assistance in determining state and federal voting districts.

This procedure also will aid in identifying those physicians who may not be registered to vote; those physicians so identified will receive voter registration forms.

Determining physicians' voting districts can be of benefit to the Medical Society of New Jersey as it participates actively in the support of proposed legislation for the betterment of quality health care.

This information also can be useful in soliciting physicians within designated voting districts to contact their legislative representative for support of the MSNJ stance on particular legislation.

PUTTING PAC MONEY IN PERSPECTIVE

Political action committees raised nearly \$138 million between January, 1979, and December, 1980, according to the Federal Election Commission's latest computer records. Of that amount, dependent PACs raised \$40.1 million, trade and health-related PACs raised \$35.4 million, corporate PACs raised \$34.2 million, and labor organization PACs raised \$27.2 million. Other statistics show: donations were split almost evenly between Democrats and Republicans; candidates of the House of Representatives received about 65 percent of all contributions; and incumbents received a greater share of the wealth than challengers. (Association Management, October, 1981)

INSECTS PROLIFERATE ON CAPITOL HILL

First it was boll weevils—Southern Democrats who supported administration fiscal policy. Then came gypsy moths—Northeastern Republicans who threatened not to support the administration. Now there are yellow jackets. They are Southern and Midwestern Republicans who don't want to be taken for granted. No Medflies . . . yet. (Nation's Business, November, 1981)

CAN A PAC MAKE A DIFFERENCE

The New Jersey Dental Association PAC effectively has

elected three of its members to the Legislature and in this past election has demonstrated its clout once again.

With nearly \$100,000 to contribute to state legislators whom the Dental PAC felt were friendly to Dental PAC causes, it decided to work to defeat three incumbent senators.

Each of the incumbents' opponents received \$5,000—the average cost of a legislative campaign is about \$25,000. Those incumbents targeted for defeat were Lee B. Laskin (R) of the 6th District, Eugene J. Bedell (D) of the 12th District, and Francis X. Herbert (D) of the 39th District.

The results indicate that the Dental PAC well may have made the difference in the defeat of two of the senators.

35,785

6th District

Lee B. Laskin (R)

James Greenberg (D)	27,231
39th District	
Gerald Cardinale (R)	36,163
Francis X. Herbert (D)	26,435
13th District	

 John P. Gallagher (R)
 34,635

 Eugene J. Bedell (D)
 33,360

The New Jersey Dental PAC claims to be the best dental political action committee in the country.

MSNJ'S POSITION ON PROPOSED NJ LEGISLATION

Assembly-1940 C. Louis Bassano. (20th District, part of Union County) To require skilled intermediate-care nursing facilities to hold a bed up to 14 days for a Medicaid resident temporarily discharged to a general hospital. ACTIVE SUP-PORT. Assigned to: Institutions, Health, and Welfare Committee, George Otlowski, Chairman, Raymond Lesniak, Vice Chairman, Charles Mays, Sr., Richard Visotcky, C. Louis Bassano, John Markert, Clifford Snedeker.

Assembly-3379 William Dowd. (10th District, parts of Monmouth and Ocean Counties) This bill would preclude children and their parents from asserting "wrongful birth" claims. ACTIVE SUPPORT. Assigned to: Judiciary, Law, Public Safety and Defense Committee; Martin Herman, Chairman, William Bate, Vice Chairman, John Doyle, Eugene Thompson, William Dowd, William Gormley, Walter Kern, Jr.

^{*}Copies of JEMPAC and AMPAC reports are filed with the Federal Election Commission and are available for purchase from Federal Election Commission, Washington, D.C. This item is prepared by the Chairman of JEMPAC Committee, Frank Watson, M.D., and A. Ronald Rouse, JEMPAC Executive Director.

Pfizer Laboratories Announces

THE FIRST ORAL
CALCIUM CHANNEL
BLOCKER
FOR THE
MANAGEMENT OF
ANGINA PECTORIS

PROCARDIA® (NIFEDIPINE) Capsules 10 mg

Nifedipine

DESCRIPTION: PROCARDIA (nitedipine) is an antianginal drug belonging to a new class of pharmacological agents, the calcium channel blockers. Nitedipine is 3,5-pyridineticarooxylic acid, 1,4-dilyo-2,6-dimethyl-4(2-nitrophryl)-, dimethyl ester, Ci.p+H_eN₂O₆, and has the structure of the control of the

Nifedipine is a yellow crystalline substance, practically insoluble in water but soluble in ethanol It has a molecular weight of 346.3, PROCARDIA CAPSULES are formulated as soft gelatin capsules for oral administration each containing 10 mg nifedipine.

united a finderunal megittal 3-903. FOOGMON AND SECTION CONTINUES are reministed as solitigated in subject for real administration each containing 10 mg nitedipine) is CLINICAL PHARMACOLOGY. PROCARDIA (nitedipine) is a calcium ion influx inhibitor (slow channel blocker or calcium ion antagonisty, and inhibits the transmembrane influx of calcium ions to the blockets and smooth muscle. The contractile processes of cardiac muscle and vascu-lar smooth muscle are dependent upon the movement of surfacellular calcium ions into these cells through specific ion channels. PROCARDIA selectively inhibits calcium ion influx across the cell membrane of cardiac muscle and vascular smooth muscle without changing serum calcium concentrations.

Mechanism of Action: The precise means by which this inhibition relieves angina has not

weethanism of Actions: The precise health by which this minimion releves anying has allowed been fully determined, but includes at least the following two mechanisms:

1) Relaxation and prevention of coronary arteries pasam: PROCARDIA dilates the main coronary arteries and coronary arteries post methods but in normal and ischemic regions, and is a potent inhibitor of coronary artery spasm, whether spontaneous or ergonovine-induced. This property increases myocardial oxygen delivery in patients with coronary artery spasm, and is responsible for the effectiveness of PROCARDIA in vasospastic (Prinzmetal's or variant) angina. Whether this coronary cable in classical pagina is one cleary that studies of exercise teleprace have not effect plays any role in classical angina is not clear, but studies of exercise tolerance have not emer plays any role in classical angina is not clear, but sources to exercise tolerance have not shown an increase in the maximum exercise rate-pressure product, a widely accepted measure of oxygen utilization. This suggests that, in general, relief of spasm or dilation of coronary arteries is not an important factor in classical angina.

2) Reduction of oxygen utilization: PROCARDIA regularly reduces arterial pressure at rest and at a given level of exercise by dilating peripheral arterioles and reducing the total peripheral resistance (afterload) against which the heart works. This unloading of the heart reduces myocar-

restraint of amounts of against which me had now a first sharp of the description of the free description of the free description and only of the free description of the effectiveness of PROCARDIA in chronic stable angular memory of the process of PROCARDIA in chronic stable angular of the process of PROCARDIA is rapidly and fully absorbed after oral Pharmacokinetics and Metabolism: PROCARDIA is rapidly and fully absorbed after oral Prinamacokimierus and metabolishii. ProCA-NDA is tapluj and tuliy absolube alter oli administration. The drug is detectable in serum 10 minutes after oral administration, and peak block of levels occur in approximately 30 minutes. It is highly bound by serum proteins. PPOCARDIA ain entabolities are eliminated via the körleys. The half-life of infediprie in plasma of the process of the process

effect on isolated myocardial tissue. This is rarely, if ever, seen in intact animals or man, probably because of reflex responses to its vasodilating effects. In man, PROCARDIA causes decreased peripheral vascular resistance and a fall in systolic and diastolic pressure, usually modest (5–10 mm Hg systolic), but sometimes larger. There is usually a small increase in heart rate, a reflex response to vasodilation. Measurements of cardiac function in patients with normal ventricular function have generally tound a small increase in cardiac index without major effects on ejection fraction, left ventricular end diastolic pressure (LVEDP) or volume (LVEDV). In patients with im-

fraction, left ventricular end diastolic pressure (LYEDP) or volume (LYEDV). In patients with impaired ventricular function, most acute studies have shown some increase in ejection fraction and reduction in left ventricular filling pressure. Electrophysiologic Effects: Although, like other members of its class, PROCARDIA decreases sinoatrial node function and afrioventricular conduction in isolated myocardial preparations, such effects have not been seen in studies in intact animals or in man. In formal enductions of the control of the cont

covery time, or slow sinus rate

INDICATIONS AND USAGE: I. Vasospastic Angina: PROCARDIA (nifedipine) is indicated for INDICATIONS AND USAGE: I. Vasospastic Angina: PROCARDIA (nitediprie) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by 5T segment elevation, 2) angina or coronary artery spasm provoked by ergonovine or 3) angiorgaphically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive diseases is not incompable with the diagnosts of vasospastic angina, provided that the above criteria are satisfied. Component but where vasospasm has not been confirmed that the observable vasospasm component but where vasospasm has not been confirmed as, where the satisfied of on exertion or in unstable angina where electrocardiographic lindings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

blockers.

Il. Chronic Stable Angina (Classical Effort-Associated Angina): PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these

patients are incomplete

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta-blocking agents may be beneficial in patients with chronic stable angina, but available infor-mation is not sufficient to predict with confidence the effects of concurrent treatment, especially in

mation is not sufficient to predict with confidence the effects of concurrent freatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When in-troducing such concomitant therapy, care must be taken to monitor blood pressure since severe hypotension can occur from the combined effects of the drugs. See Warnings. CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA. WARNINGS: Excessive Hypotension: Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly loterated hypotension. These responses have usually occurred during initial iteration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant heat abnorless.

Increased Angina/Beta Blocker Withdrawal: Occasional patients have developed well doc umented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate along.

Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with in-creased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it.

PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reliex catecholamine release. There have been occasional reprots of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers in possible, rather than stopping them abruptly before beginning PROCARDIA. Congestive Heart Failure: Rarely, patients usually receiving a beta blocker have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater isk for such an event, as the unloading effect of PROCARDIA would be expected to be of less benefit to these patients, owing to their fixed impedance to flow across the aortic valve. PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and tiration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. See Warnings.

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasociated with arterial vasociation. The patients are addition and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to

diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug interactions: Beta-adrenergic blocking agents: See Indications and Warnings. Experience 1400 patients in a non-comparative clinical trial has shown that concomitant administration in over 140U patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severel hypotension or exacerbation of angina. Long-acting nitrates: PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination. Carcinogenesis, mutagenesis, impairment of fertility: Nifedipine was administered orally to rate from two varies and was not below to the accinopage.

Carcinogenesis, mutagenesis, impairment of tentility: Nifedipine was administered orally for rats for two years and was not shown to be carcinogenic. When given to rats prior to mating, nifedipine caused reduced tentility at a dose approximately 30 times the maximum recommended human dose. In vivo mutagenicity studies were negative. Pregnancy: Pregnancy category C. Nifedipine has been shown to be teratogenic in rats when given in doses 30 times the maximum recommended human dose. Nifedipine was embryotoxic (increased letal resorptions, decreased fetal weight, increased sturted forms, increased fetal deaths, decreased neonatal survival) in rats, mice and rabbits at doses of from 3 to 10 times the deaths, decreased neonatal survival) in rats, mice and rabbits at doses of from 3 to 10 times the maximum recommended human dose. In pregnant monkeys, doses 2/3 and twice the maximum recommended human dose resulted in small placentas and underdeveloped chorionic villi. In rats, doses three times the maximum human dose and higher caused prolongation of pregnancy. There are no adequate and well-controlled studies in pregnant women. PROCAFDIA should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. ADVERSE REACTIONS: in multiple-dose U.S. and foreign-controlled studies in which adverse and tarely required discontinuation of therapy or classing adjustment. Most were expected conse-quences of the vasodilator effects of PROCAFDIA.

PROCARDIA (%) (N = 226) Placebo (%) (N = 235)

Adverse Effect Dizziness, light-headedness, giddiness Flushing, heat sensation Headache Weakness 12 10 Nausea, heartburn Muscle cramps, tremor Peripheral edema Nervousness, mood changes Dyspnea, cough, wheezing

Dyspnea, cough, wheezing

Assal congestion, sore throat

There is also a large uncontrolled experience in over 2100 patients in the United States. Most of
the patients had vasospastic or resistant angina pectoris, and about half had concomitant treatment with beta-adrenergic blocking agents. The most common adverse events were the same
ones seen in the controlled trials, with dizzness or light-headdenss, peripheral edema, nausea,
weakness, headache and flushing each occurring in about 0% of patients, transient hypotension
with reduction in the dose of PROCARDIA or concomitant antaingnial medication. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due
to associated hypotension.

troduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

Several of these side effects appear to be dose related. Peripheral edema occurred in about one in 25 patients at doses less than 60 mg per day and in about one patient in eight at 120 mg per day or more. Transient hypotension, generally of mild to moderate severity and seldom requiring discontinuation of therapy, occurred in one of 50 patients at tess than 60 mg per day and in one of 20 patients at tess than 60 mg per day and in one of 20 patients at tess than 60 mg per day and in one of 20 patients at tess than 60 mg per day and in one of 20 patients at tess than 60 mg per day and in one of 20 patients at tess than 60 mg per day and in one of 20 patients at tess than 60 mg per day and in one of 20 patients at 120 mg per day and in one of 20 patients at 120 mg per day and in one of 20 patients at 120 mg per day and in one of 20 patients at 120 mg per day and in one of 30 patients at 120 mg per day one of 30 patients at 120 mg per day one of 30 patients at 120 mg per day one of 30 pati

in addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in lewer than 0.5% of patients.

In a subgroup of over 1000 patients receiving PROCARDIA with concomitant beta blocker them such as target and incidence of adverse avergingors was not different from that of the online.

in a subgroup of over 1000 patients receiving PHOLAHDIA with concomitant beta blocker therapy, the patient and incidence of adverse experiences was not different from that of the entire group of PROCARDIA treated patients (see Precautions).

In a subgroup of patients with a diagnosis of congestive heart failure as well as angina, dizziness or light-headedness, peripheral edema, headache or flushing each occurred in one in eight patients. Hypotension occurred in about one in 20 patients. Syncope occurred in approximately one patient in 250. Myocardia infarction or symptoms of congestive heart failure each occurred in about one patient in 350 that or ventricular dyshythmias each occurred in about one patient in 150

Laboratory tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly

hospitalises, CK-LDH, SGOT, and SGPT have been notice, and a single interval set in the control of the control

doses can result in hypotension.

The starting dose is one 10 mg capsule, swallowed whole, 3 times/day. The usual effective dose range is 10–20 mg three times daily. Some patients, especially those with evidence of coronary artery spasm, respond only to higher doses, more frequent administration, or both. In such patients, doses of 20–30 mg three or four times daily may be effective. Doses above 120 mg daily are rarely necessary. More than 180 mg per day is not recommended. In most cases, PROCARDIA titration should proceed over a 7–14 day period so that the physican can assess the response to each dose level and monitor the blood pressure before proceed-

clarical assess the response to each uses rever and months the blood passage and selecting to higher doses.

If symptoms so warrant, litration may proceed more rapidly provided that the patient is assessed frequently, Based on the patient's physical activity level, attack frequency, and sublingual nitroglycerin consumption, the dose of PROCARDIA may be increased from 10 mg t.i.d. to 20 mg introgreem consumption, the dose of PROCADATHEY be increased norm (init g.t.d., to 2 on in t.d. and then to 30 mg t.t.d. over a three-day period. In hospitalized patients under close observation, the dose may be increased in 10 mg incre-ments over four to six-hour periods as required to control pain and arrhythmias due to ischemia. A

ments over four to six-hour periods as required to control pain and arrhythmias due to ischemia. A single dose should rarely exceed 30 mg. No "rebound effect" has been observed upon discontinuation of PROCARDIA. However, if discontinuation of PROCARDIA is necessary, sound clinical practice suggests that the dosage should be decreased gradually with close physician supervision.

Co-Administration with Other Antiangianal Drugs: Sublingual nitroglycerin may be taken as required for the control of acute manifestations of angina, particularly during PROCARDIA titles as Proceedings. Pure Interactions for information on co-administration of PROCARDIA titles.

required for the control of acute manifestations of angina, particularly during PROCARDIA titra-tion. See Precautions, Drug Interactions for information on co-administration of PROCARDIA with beta blockers or long-acting nitrates. HOW SUPPLIED: Each orange, soft gelatin PROCARDIA Capsule contains 10 mg of infedipine. PROCARDIA Capsules are supplied in amber glass bottles of 100 capsules (NDC 0069-2600-66). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

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Medical Evaluation and Treatment of Eighth-Nerve Disorders in the Learning Disabled Child

S. THOMAS WESTERMAN, M.D., LIANE M. GILBERT, M.A., LINDA G. MADUSKY, Shrewsbury*

It recently has become evident that defects in the vestibular system, including the medial longitudinal fasciculus, can be a major cause of dyslexia and other learning disabilities. Symptoms related to these defects frequently are subclinical in nature and are very difficult to observe. A battery of tests was developed to evaluate eighth-nerve function and medical treatment was instituted.

uring the past ten years, much research has been conducted with regard to vestibular function disorders in the learning disabled child. 13 It has been established fairly well that quite a large percentage of children who are classified as learning disabled demonstrate abnormal responses to vestibular function testing. Ayres found that 50 percent of learning disabled children gave evidence of these defects. 4 Haid reports that 40 percent of 66 children tested had abnormal caloric responses. 5

Prerequisite skills necessary for reading and writing such as skilled movements of the eyes, ability to perceive and recognize shapes, and awareness of relationships between motion and space all are regulated by vestibular-ocular motor pathways which are mediated through the medial longitudinal fasciculus.

Objective measurement of these processes is possible with the electronystagmographer (ENG). As testing procedures become more sophisticated, the subclinical manifestations of these defects can be detected more easily. Levinson, using a sample of 115 reading disabled children, was able to demonstrate through various developed techniques that 97 percent had evidence of cerebellar-vestibular (C-V) dysfunction. Seventy of his patients subsequently had "blind" ENGs at seven different hospitals. Abnormalities indicating C-V dysfunction were recognized in 90 percent.

It is interesting to note that 20 percent of the children tested with ENG had positional or spontaneous nystagmus

even though no clinical nystagmus was observed in any of the 115 children initially tested. This "masking" of symptoms due to compensation by the brain is possibly the reason that disorders of this nature have gone unrecognized for so many years

Defects in the eighth nerve also can result in hearing impairment. Haid found that many of the children in his study who had a unilateral or bilateral deficit revealed in caloric testing using the ENG also had a disturbance in hearing.

Generally, however, learning disabled children demonstrate good visual and hearing acuity, with deficits in auditory and visual perceptual areas. One of the most difficult areas to evaluate for the educator is auditory figure-ground discrimination or signal-to-noise ratio. Often, deficits in this area go unnoticed in the learning disabled child because he generally is considered to have no disability when tested with standard audiometric screening procedures by school personnel. The perceptual auditory impairment in this case only occurs when the background noise is of a significantly high enough level to interfere with the child's perception of essential sound elements in the classroom. Many researchers have found that these children have a significant

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difference in performance when tested in a soundproof booth, and then retested with background noise.^{8,9}

We have developed a battery of tests for the evaluation of the eighth nerve and its associated functions.

METHOD

The electronystagmograph evaluation of the child includes calibration, gaze testing, positional testing, visual tracking and optokinetic testing at four different speeds, pendular tracking, spinning and cold caloric testing.

We have developed a test to evaluate the positional maintenance system, using the ENG. We refer to this test as the Sashay Test. The child is asked to stand with his feet apart while fixating on an object six feet in front of him. He then is asked to swing his shoulders from side to side, so that first one shoulder and then the other shoulder points to the object at which he is looking.

Audiometric evaluation is performed in a soundproof booth. This evaluation includes testing at 500, 1000, 2000, 4000 and 8000 hz air conduction and speech reception threshold and discrimination with further testing where indicated.

Auditory figure-ground perceptual abilities then are tested. The child is tested binaurally with a gradual increase in background noise from 0 to 40 decibels. The child then is tested monaurally with the same procedure.

PROCEDURE

Forty-one children were tested with a complete battery of tests. All children had been diagnosed by a child study team as learning disabled and/or dyslexic.

RESULTS OF TESTING

Thirty-seven children revealed deficits in the battery of tests administered (91%). Thirty-one children (76%) showed deficits in ENG testing. Seventeen children (55%) had hypofunction during cold caloric testing. Twenty children (50%) demonstrated abnormalities during optokinetic and pendular tracking tests. Fourteen children who revealed hypofunction in cold caloric tests also past-pointed to the opposite side. (Six children had a combination of disorders.) Nine children (22%) had auditory figure-ground perceptual impairment binaurally. Six children (15%) had auditory figure-ground perceptual impairment unilaterally.

TREATMENT

The 17 children diagnosed as having hypofunction of the vestibular system were treated with therapeutic doses of meclizine HCL and/or dyphenhydramine hydrochloride. The 20 children who demonstrated central deficits were treated with scopolamine and/or phenobarbital. The six children who demonstrated a combination of disorders were treated with a combination of these drugs. The children with auditory figure-ground impairments were referred to the child study team for development of the proper educational plan.

FOLLOWUP

Each child who participated in the study was examined on a monthly basis for approximately one year. Electronystagmographic and audiometric tests were repeated at six months and one year. At the six-month interval, 86 percent of the children with hypofunction of the vestibular system markedly were improved and medication was terminated.

Upon examination one month later three children exhibited a return of their original symptoms of hypofunction of the vestibular system. They again were placed on medication and are continuing to progress.

Fifty-five percent of the children who exhibited central deficits showed improvement at their six-month ENG retesting. Eighty-one percent showed marked improvement at the one-year interval. Followup is being continued on a monthly basis. The progress of all children was reviewed on a monthly basis with school child study teams.

DISCUSSION

The three mechanisms of balance, the eyes, the inner ears and spinal reflexes, are mediated through the medial longitudinal fasciculus and continue on to higher centers of the brain. Any disturbance in this system appears to affect the entire system.

A subclinical defect can be quite significant in the overall learning process whether it is due to auditory perception, visual perception or "balance" perception.

The results of our studies indicate that many learning disabilities manifested in children are of medical origin. Proper diagnosis and treatment of these children can result in a significant reduction of dysfunction which in turn helps to alleviate the educational disability.

CONCLUSION

We have developed a battery of tests with the purpose of evaluating the eighth nerve and its associated functions. The results of our studies as well as others indicate that a significant proportion of learning-disabled children have deficits in these areas. Subclinical defects, although compensated for by the higher centers of the brain for gross balance problems, can cause significant learning disability disorders which now can be measured and treated medically.

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write perioration (s. in tibues of 10 ca and ½ oz and ½ oz (approx), toli packets ATIONS: Therapeutically (as an adjunct to systemic therapy when indicated), for infections, primary operations, so this externa - primary podermas (impeting), as yocosis vulgaris, paronychal - secondarily infected demandoses (eczema, heperioration), as yocosis vulgaris, paronychal - secondarily infected demandoses (eczema, heperioration), as yocosis vulgaris, paronychal - secondarily infected demandoses (eczema, heperioration), as yocosis vulgaris, paronychal i esions, inflandoration of antiection Prophylactically the ontiment may be used to prevent bacterial contaminations, so that is a proposed to the proposed proposed

RAINDICATIONS: Not for use in the eyes or in the external ear canal ardrum is perforated. This product is contraindicated in those individuals we shown hypersensitivity to any of its components.

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antibiotics concurrently, not more than one application; a day is recommended. When using neomyclin-containing products to control secondary infection in the chronic dermaloses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomyclin. The manifestation of sensitization to neomycn is usually a low grade reddening with swelling, dry scaling and tiching, if may be manifest simply as a failure to heal. During long-refin use of neomycrin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress guickly on wildrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

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minerals, but generally at levels substantially higher than those in Berocca Plus. However, allergic and idiosyncratic reactions are possible at lower levels. Iron, even at the usual recommended levels, has been associated with gastrointestinal intolerance in some patients.

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THE MUITIVITAMIN/MINERAL FORMULATION

Superior Vena Cava Obstruction Secondary to Retrosternal Goiter

STANLEY FIEBER, M.D., JOSEPH D. COHN, M.D., JEFFERSON BASTIDES, M.D., BURTON GILLETTE, M.D., Livingston*

The clinical features of superior vena cava obstruction, regardless of etiology, are essentially the same. The course is dependent upon the rapidity and capacity for collateral circulation to develop. Surgical extirpation of the mass becomes necessary in benign conditions, such as a substernal goiter, if the superior vena cava obstruction is accompanied by respiratory obstruction or central nervous system symptoms. Otherwise, with adequate collateral venous circulation, long-term survival can be anticipated.

uperior vena cava obstruction (SVCO) first was described authentically in 1757 by William Hunter; it was a complication of saccular aneurysm of the aorta secondary to syphilis.¹ In a review of 734 cases of SVCO between 1949 and 1967, 1.2 percent were caused by benign intrathoracic tumors.² Of these, 4 or 0.5 percent were due to intrathoracic goiters. Although most goiters remain confined to the neck, up to 12.9 percent extend into the thorax.³ The terms intrathoracic, mediastinal, substernal, and retrosternal goiter are used interchangeably in the literature. As recently as 1927, Higgins reported the first case of a SVCO caused by a benign intrathoracic goiter.⁴ In 1953, McArt cured the first such patient with thyroidectomy.³

CASE REPORTS

Case 1—On November 17, 1980, a 71-year-old white female was hospitalized with a three-day history of dusky swelling of the face and distended veins of the neck, upper extremity, and chest wall. This was accompanied by personality changes and coarse tremors of both upper extremities. There was no dysphonia, dysphagia, or respiratory distress. The patient is a Jehovah's Witness.

Laboratory findings, including the hemogram, urinalysis, T3, T4, SMA-12, electrolytes, PT, PTT, and electrophoretic pattern were within normal limits, B- and T- lymphocytes were in normal proportions. Roentgenogram of the chest revealed a superior mediastinal mass displacing the trachea

to the right (Figure 1). A barium swallow showed deviation of the esophagus to the right but no obstruction to contrast flow. Thyroid, brain, liver, and spleen scintigraphy were normal. Skeletal scintigraphy was compatible with multiple degenerative arthritic changes. Simultaneous bilateral venography of the upper extremities disclosed stenoses of the right and left subclavian veins at the junction of the subclavian-innominate veins (Figure 2-A). There was displacement of the innominate veins with collateral circulation through the hemiazygos and azygos systems. Mediastinoscopy and biopsy produced nonmalignant thyroid tissue. Because the patient was a Jehovah's Witness, special legal consent forms were signed by members of the family and the patient, releasing the treating surgeons from any liability related to refusal of blood-product replacement. The patient was prepared for surgery with levothyroxine and Lugol's solution for one week.

On November 20, 1980, under general endotracheal anesthesia, through a cervical incision, a total left and subtotal right thyroidectomy were performed with extirpation of the retrosternal mass. The resected left thyroid lobe measured 18 x 10 x 6 cm and weighed 154 gm. The subtotally

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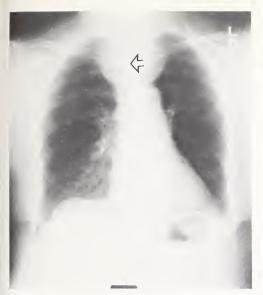


Figure 1—Chest film demonstrating a superior mediastinal mass with displacement of the trachea to the right.



Figure 2-A—Superior venacavogram disclosing bilateral subclavian vein stenosis and lateral displacement of the innominate veins. Notice the supraclavicular-thyroid (large arrowhead), intercostal (small arrowhead), and azygos collaterals (arrow).

resected right thyroid lobe measured 5 x 4 x 3 cm. The pathological diagnosis was multinodular adenomatous goiter with foci of calcification, fibrosis, and recent hemorrhage. Blood loss during the operation was estimated at 250 ml. A venogram on December 1, 1980, disclosed persistent right and left subclavian vein and right cephalic vein occlusion (Figure 2-B). The patient was treated with a short course of low-dose heparin and aspirin since she refused anticoagulation therapy. Mental aberrations and tremors diminished. Treatment after discharge included thyroid ex-



Figure 2-B—Postsurgical superior venacavogram outlining residual bilateral subclavian vein stenoses, diminution of collateral circulation, and mid-right subclavian vein thrombosis (arrow).

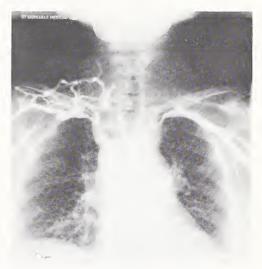


Figure 2-C—Decreased subclavian stenosis and recanalization of the right subclavian vein.

tract 60 mg bid, aspirin 600 mg every six hours and Sinemet® 25/250 tid. Venography on January 9, 1981, showed recanalization of the right axillary vein with decreased stenoses at the junction of the right and left subclavian-innominate veins (Figure 2-C). Six months postoperatively, the patient was completely asymptomatic.

Case 2—On May 9, 1977, an 81-year-old white male was admitted to the hospital with a ten-year history of progressive prostatism. The patient had a past history of hypertension, hiatus hernia, and emphysema.

Physical examination revealed an enlarged thyroid gland. Chest x-ray revealed a large soft tissue density at the thoracic inlet that displaced the trachea to the left. Thyroid scintigraphy with I-123 was compatible with a markedly enlarged right thyroid lobe with retrosternal extension. T-3 resin uptake was 54.4 percent (normal 34 to 46 percent), and total thyroxine was 11.5 (normal 4 to 12 Uo/ml). The 24-hour thyroid uptake with I-131 was 23 percent (normal 8 to 33 percent).

Table 1 Superior Vena Covo Obstruction Secondory To Retrosternal Goiter

Case Na.	Author	SVCO; Other Symptoms	Pathology	Remarks
-	McArt et al. 50 BM	Fullness of neck 5-10 yrs; several years of increasing timitus, impairment of hearing, hoarseness, and sensation of "fullness in the head"	Adenomatous goiter	Cervical bilateral subtotal thyrridectomy. 5 weeks fallowup revealed regression of SVCO
2	Kim et al.5 64 WM	Lump in neck 20 years; shartness of breath several months	Well-differentiated follicular carcinoma with anaplastic lobulated mass	Autopsy revealed metastases to jugular veins, S.V.C. pulmonary artery and right heart
м	Sherman and Chest pain Shahbah- rami ⁹ 38 WM	Chest pain	Thyroid adenoma	Mediastinal biopsy
4	Segali 10 52 BF	Several days dyspnea, cyanosis, and stupor	Fetal adenama with acute hemarrhage into gland	Emergency tracheastomy; thyroid- ectomy through sternotomy; stormy postop course; final recovery good
S	Silverstein et al. 7 58 F	Silverstein 1 year with dyspnea when et al. 7 supine; 2 weeks hoarse-58 F ness	Multinadular colloid goiter	Cervical subtotal thyroidectomy; I month postop right cervical collateral venous circulation persisted; 2 months postop ex- pired from trachobronchitis and atelectasis
9	Siderys and Rowe 1 80 F	Siderys and 1 year, 6 months easy Rowe 11 farigueability, shortness af 80 F breath, and nonproductive cough	Nodular growth	Biopsy was performed under fluoroscopy with a Vim Silverman needle. Treatment consisted of large dose af radiactive iodine (60 millicuries). 2 months followup revealed clearing of the SVCO and decrease in size of mass
7	Siderys and Rowe 11 84 M	Siderys and Fatigue, anorexia, 60 lb - Rowell weight loss over 1 year, 84 M campression of esophagus, lethargy	Nodular goiter	Needle biopsy through a supra- sternal incision caused acute respiratory distress requiring a tracheostamy. Cervical thyroid- ectomy was performed. Patient was asymptomatic 1 year later
ω	Evans et al. 12 62 WF	"Acute" severe dyspnea	Nontoxic nodular gaiter	Cervical thyroidectomy with complete relief of symptoms

6	Evans 12	8 weeks syncope	Nontoxic nodular goiter	Thyroidectomy with complete relief
	etal.			of symptoms
10	Evans et al. 12 40 WM	3 weeks; dyspnea at rest and dysphonia	Adenomatous thyroid with extensive recent hemorrhage	Thyroidectomy with complete relief of symptoms
=	Gomes et al.13 61 F	Goiter 3 years; recent increasing fatigue and cervical obstruction	Nodular adenomatous goiter and old hemorrhage	Thyroidectomy through mid- sternotomy; relief of compression
12	LeSavoy et al. 14 44 BF	Goiter 13 years. Moderal dysphagia on flexing head and intermittent headaches	Nodular colloid goiter	Thyroidectomy through cervical and sternal splitting incisions; complete relief of symptoms
13	Anastacic et al. 15 51 BM	Goiter 3 years		Cervical thyroidectomy
14	Anastacic et al. 15 68 BM	Goiter, facial edema, cyanosis for "many years"		Subtotal thyroidectomy
15	Sparagne ⁶ 63 M	Thyromegaly 6 years; 6 days Multinodular colloid goiter neck swelling, dyspnea and lethargy; on admission, semistuporous dyspneic, puffy facies, and conjunctiput year defends a distracted and valudrar veins distracted.	Multinodular colloid goiter	Autopsy revealed G.I. hemorrhage, pulmonary embolism, chronic renal failure and bilateral obstruction from subclavian to innominate veins by retrosternal goiter
16	Steenerson and Barton 17 71 M	Right thyromegaly 30 years, Tracheotomy and right hemi- thyroidectomy performed. 6 years later developed acute SVCO	Multinodular goiter	Through sternatomy, a posterior mediastinal mass was resected
۲۱.	Tolle 18 et al. 71 M	Several years pain and seek, swelling left hand and neck, facial fullness and dilated anterior chest veins; progressive widening of mediarismen fracheol compression over 2 years	Benign nodular goiter	Thyroid hormone therapy (thyroxin 75 ug/d) produced significant im- provement in 2 months
18	Hillerdal et al. 19 69 M	I year 2 kg-weight loss; cough for few months; hoarseness for "some time"; acute wheezing and diffi- culty breathing I day. Neck swellen, face puffy, eyes bloodshot, veins well filled on upper torso; stridor	Colloidal goiter	Tracheostomy performed because of vocal cord paresis, required arritical vertilation. Emergency thyroidectomy performed. Unevented I recovery with disappearance of stridor and hoarseness

"Maximum compression of veins occurs at the subclavian-innominate vein junction adjacent to the first rib."



Figure 3—Superior venacavogram demonstrating a large thoracic inlet mass producing tracheal and bilateral innominate veins displacement. Segmental occlusion is at the right subclavian-innominate vein junction (arrow) with extensive collateral circulation.

On May 20, 1977, a transurethral prostatic resection was performed. On May 24, 1977, simultaneous contrast material injection through both cephalic veins demonstrated bilateral displacement of the innominate veins with segmental occlusion of the right subclavian-innominate vein junction and extensive collateral circulation (Figure 3). Mediastinal biopsy was reported to be a follicular goiter. The goiter subsequently was stabilized with 25 mcg of L-triiodothyronine daily. The patient essentially remained asymptomatic until February, 1980, when he expired from a cerebrovascular accident.

SUMMARY OF CASES

Two cases of superior vena cava obstruction are described. The first patient had hemorrhage into a retrosternal colloid goiter causing an acute SVCO with central nervous system symptoms; she responded well to a subtotal thyroidectomy. In the second case, the collateral circulation adequately compensated for the subclavian-innominate compression and allowed for long-term survival.

DISCUSSION

As a cervical goiter extends into the mediastinum through the relatively narrow thoracic inlet, it may compress or "The most serious cases occur when both the superior vena cava and azygos veins completely are occluded."

displace adjacent structures. Veins, particularly, are vulnerable to obstruction because they are thin-walled and part of a low-pressure system. Maximum compression of veins occurs at the subclavian-innominate vein junction adjacent to the first rib. If sufficient inferior extension is present, the superior vena cava also may be affected. Once obstruction to the innominate veins has occurred, collateral pathways compensate by dilatation and increasing flow.

From the head and neck: The internal and external jugular, inferior thyroid, and vertebral veins drain into the subclavian veins; a retrograde collateral flow develops through the internal mammary and axillary veins.

From the upper extremities: Through a complex system of axillary and subclavian venous collaterals, e.g., thoracoacromial, cephalic, thoracoepigastric, intercostals, lateral thoracic, circumflex humeral, circumflex scapular, and mammary plexuses, the flow is directed to the hemiazygos and azygos veins or the inferior vena cava.

The onset of the superior vena cava obstruction may be acute, subacute, or chronic. The availability of collateral circulation will influence the signs and symptoms. Many patients are completely asymptomatic. Others may develop edema and plethora of the face; dilatation of the veins of the face, neck, upper extremities, and upper torso. Accompanying cerebral edema may be manifested by mild to severe central nervous system symptoms. Bronchial constriction and tracheal and vocal cord edema may lead to respiratory distress. The most serious cases occur when both the superior vena cava and azygos veins completely are occluded.

The diagnosis is established by chest roentgenograms, thyroid scintigraphy, and cardiopulmonary dynamic studies with technetium pertechnetate (99th Tc).⁷⁻¹⁶ In the upper extremities, venous pressure manometry over 25 cm of water is pathological. Location and extent of obstruction is determined by simultaneous bilateral upper extremity venography. Tissue confirmation should be obtained by mediastinoscopic or surgical exploration.

Eighteen pathologically verified cases of retrosternal goiter causing SVCO have appeared in the English literature in the past 27 years (Table 1). Nontoxic nodular goiter was the predominating pathology. Other entities were adenoma in two cases, and a well-differentiated follicular carcinoma with a superimposed anaplastic lobulated mass in another. Also, in the latter case report, Kim et al. cited seven ancient cases of carcinoma of the thyroid causing SVCO.8

Thirteen cases were male and 5 cases were female. The average age was 60 years. For diagnostic purposes, thyroid scan was utilized in 11, venography in 10, and computed tomography in 1 case. 18 Factors requiring surgery were respiratory failure (9 cases), central nervous system symptoms (6 cases), and hoarseness (4 cases). Two cases (10 and 12) were similar to Case 1 in that extensive recent hemor-

"When the cause of superior vena cava obstruction is an enlarged thyroid gland, an attempt should be made to reduce or suppress the gland medically."

rhage within the gland was responsible for the rapid development of compression symptoms. Overall, thyroidectomy through a cervical or sternotomy approach afforded the best results in resolving the SVCO. One case had significant improvement after two months of thyroid therapy.¹⁸

Mahajan²⁰ listed 34 various causes of benign superior vena cava compression. In most of these instances, an effective collateral circulation developed and the prognosis became long-term. When the cause of superior vena cava obstruction is an enlarged thyroid gland, an attempt should be made to reduce or suppress the gland medically. Diuretics may afford temporary symptomatic relief. Anticoagulants and fibrinolytic agents may help preserve collateral circulation. However, they are contraindicated if thyroid enlargement is due to recent hemorrhage into the gland. If the symptoms are not alleviated medically, surgical resection of the compressing mass is advocated. Emphasis is placed on reducing the venous hypertension to the head, neck, and upper extremities by meticulously ligating the thyroid arterial blood supply early and mobilizing the thyroid gland from the mediastinum. Ingenious methods to reconstruct or bypass an obstructed vena cava with prosthetic or autogenous composite grafts are not necessary when the cause is an intrathoracic goiter. If surgery is contraindicated, radioactive iodine or external radiation can be considered.6,11

CONCLUSION

The clinical features of superior vena cava obstruction, regardless of etiology, are essentially the same. The high venous pressure and its attendant clinical manifestations readily are recognized. The course is dependent upon the rapidity and capacity for collateral circulation to develop. In most cases, the treatment is nonsurgical. However, in benign conditions such as a substernal goiter, if the SVCO is accompanied by respiratory distress or central nervous system symptoms, surgical extirpation becomes necessary.

Two cases of superior vena cava compression are reported. One represented acute SVCO with central nervous system symptoms that responded well to thyroidectomy. The second case depicted long-term survival when adequate collateral venous circulation developed.

"If the symptoms are not alleviated medically, surgical resection of the compressing mass is advocated."

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WARNING: This fixed combination drug is not indicated for initial therapy of hypertension. Hypertension enquille, therapy litrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenent in patient management. The treatment of hypertension is not static, but must be reevaluated as conditions in each patient warrant

DESCRIPTION: INDERIDE combines two antihypertensive agents. INDERAL (propranolol hydrochloride), a beta-adrenergic blocking agent, and hydrochlorothiazide, a thiazide diuretic-antihypertensive.

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CONTRAINDICATIONS: Propranolol hydrochloride (INDERAL®): Propranolol hydrochlo-CON HANDICATIONS: Proprandot ingrotein under information production and es contraindicated in 1) bronchial asthma, 2) altergic minists during the pollen season, 3) sirus bradycardia and greater than first degree block, 4) cardiogenic shock, 5) right ventrouial failure secondary to pulmonary hypertension, 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarthythmia treatable with proprianolic? 7) in patients on adrenergic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs.

Hydrochlorothiazide: Hydrochlorothiazide is contraindicated in patients with anuria or hy-

WARNINGS: Propranolol hydrochloride (INDERAL**): CARDIAC FAILURE Sympathetic WARNINGS: Propranolol hydrochloride (INDERAL*): CARDIAC FAILURE. Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta blockade always carries the potential hazard of further depressing hydrocardial contractibity and precipitating cardiac failure. Progranollol acts selectively without abolishing the inotropic action of digitalis on the heart muscle (i.e., that of supporting the strength of myocardial contractions). In patients already receiving digitalis, the positive inotropic action of digitalis may be reduced by propranolol's negative inotropic effect. The effects of progranolol and digitalis are additive in depressing AV conduction. IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a penod of time can, in some cases, lead to cardiac failure. In are instances, this has been observed during progranolol therapy. Therefore, at the first sign or symptom of impending cardiac failure, batters should be fully digitalized and/or given a divertic, and the response observed closely. a) if cardiac failure continues, despite adequate digitalization and diuretic therapy, progranolol therapy should be immediately withdrawn. b) if tachyarrhythma is being controlled, patients should be maintained on combined therapy and the patient closely followed until threat of cardiac failure so over

e patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial inflarction, following abrupt discontinuation of propranoloi therapy. Therefore, when discontinuance of propranoloi is planned the dosage should be gradually reduced and the patient carefully monitored in addition, when propranoloi is prescribed for angina pectoris. The patient should be cautioned against interruption or cessation of therapy without the physician's advice if propranoloi therapy is interrupted and exacerbation of angina occur insulated advisable against unstable angina pectoris. Since coronary afterly disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atthroadieroic heart disease, who are quive no propranoloi for other indications. atherosclerotic heart disease, who are given propranolol for other indications

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use IN PAILENTS WITH IT HOU DATACATS, possible deleterious effects normoni-term use have not been adequately appraised. Special consideration should be given to program-lofs potential for aggravating congestive heart failure. Propriation may mask the clinical signs of developing or continuing hyperfly joids mor complications and give a false impression of improvement. Therefore, abury withdrawal of propriation storm, this is another reason accretion of symptoms of hyperfly poders, including thyroid storm. This is another reason accretion of symptoms of hyperfly poders, including thyroid storm. This is another reason. IN PAILENTS WITH WOLFF PARKINSON WHITE SYNDROME, several cases have been reported in swheth after programmoli, the tendry arisk and sarged by a several cases have been

reported in which, after propranoloi, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg pro-

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of phecotromocytoms, propranolol should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emer-gency surgery, since progranolol is a competitive inhibitor of beta-receptor agonists, its ef-fects can be reviersed by administration of such agents e.g., isoprotected or levarterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in re-station and maintaining the heart healths as four hear resource.

statting and maintaining the heart beat has also been reported IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-CHITIS, EMPHYSEMA), propranoiol should be administered with caution since it may block

bronchodilation produced by endogenous and exogenous catecholamine stimulation of

beta receptors.

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its beta DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its beta-adrenergic blocking activity, propranolol may prevent the appearance of premonitory signs and symptoms (puise rate and pressure changes) of acute hypoglycemia. This is especially important to keep in mind in patients with labil ediabetes. Hypoglycemic attacks may be ac-companied by a precipious elevation of blood pressure. Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease in pa-tients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop. Thiazides should also be used with caution in patients with impaired hepatic function or

progressive liver disease, since minor alterations of fluid and electrolyte balance may p

cipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation

Madutes may act to to potentials me solver of order an implementate origin. The madutes not occurs with ganglionic or peripheral adrenging blocking drugs. Sensitivity reactions may occur in patients with a history of allergy or bronchial atthma. The possibility of exacerbation or activation of systemic lupus erythematosus has been re-

USE IN PREGNANCY: Propranolol hydrochloride (INDERAL "): The safe use of pro USE IN PREGNANCY: Propranolol hydrochloride (INDERAL*): The safe use of pro-pranolol in numan pregnancy has not been established. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or fetus be weighted against the expected therapeutic benefit. Embryotics effects have been seen in weighted against the expected therapeutic benefit. Embryotics effects have been seen in sealing and the safe of the safe

uld stop nur

tial. The patient should stop nursing PRECAUTIONS: Propranolo hydrochloride (INDERAL*): Patients receiving catechol-amine-depleting drugs such as reserpine should be closely observed if propranolol is ad-ministered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharma-clogic activity of progranolol may produce hypotension and/or marked bradycardia result-ing in vertigo, syncopal attacks, or orthostatic hypotension. As with any new drug given over prolonged periods, laboratory parameters should be ob-served at regular intervals. The drug should be used with caution in patients with impaired regal or heading function.

renal or hepatic function

Hydrochlorothiazide: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals

electrolyte imbalance should be performed at appropriate intervals. All patients receiving this case therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalosis, and hypokalemia Serum and unne electrolyte determinations are particularly important when the patient is vomilling excessively or receiving parenteral fluids. Medication such as digitalis may also in tilluence serum electrolytes. Warning signs, "respective of cause are dryness of mouth, thirst, weakness, leidingly, drowsiness, reallessness, muscle pains or cramps, suscular fa-rigue. Hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting

and vomiting. Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present or during concomitant use of corticosteroids or ACTH interference with adequate or all electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effects of digitalise (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements such as foods with a high potassium content. Any chloride deficit is generally mild, and usually does not require specific treatment except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hol weather; appropriate herapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is flethreateming, in actual said tegletion, appropriate represement is the therapy of choice. Hyperuncemia may occur or frank gout may be precipitated in certain patients receiving this interference in the propriate of the propriate the receiving through the propriate the respective of the propriate the receiving through the propriate the respective of the propriate that the propriate that the propriate that the propriate the propriate the p

thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged Diabetes mellitus which has been latent may become manifest during thiazide administra-

Diabetes meilitus which has been latent may become manifest during thiazide administration

Thiazide drugs may increase the responsiveness to tubocurarine
The antihypertensive effects of the drug may be enhanced in the postsympathectomy patient. Thiazides may decrease afterial responsiveness to norepinephine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic threaty occrease serum PBI levels without signs of thyroid disturbance.

Calcium excetteion is decreased by thiazides. Pathologic changes in the parathyroid calcium the parathyroid manifest of the parathyroid manifest of the parathyroid manifest of the parathyroid manifest of the parathyroid flushed the pathologic changes in the parathyroid all lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

ADVERSE REACTIONS: Progranolol hydrochloride (INDERAL*): Cardiovascular: bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, afterial insufficiency, usually of the Raynaud type; thrombocytopenic purpura. Central Nervous System: lightheadedness, mental depression manifested by insomnia, ilassitude, weakness, fatigue; reversible emetal depression progressing to catations; usual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation or time and piace, short term memory loss, emotional lability, sightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastroriestrian insufficientem memory loss, emotional lability, sightly clouded sensorium, and excreased performance on neuropsychometrics.

Gastroriestrian insufficientem memory loss, emotional lability, sightly clouded sensorium.

Allerge op pharyngits and agranulocytoss, enythematous rash, fever combined with aching any pharyngits and degranulocytoss, enythematous ra

Respiratory bronchospasm Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura Miscellaneous reversible alopecia. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been

serous memoranes and conjunctivae reported for a perta diocxet (practicolo) have not peen conclusively associated with prograndiol Clinical Laboratory less Findings. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase, Hydrochlorothiazide: Gastrointestinal, anorexia, gastrio irritation, nausea, vomiting, cramping, diamhea, constipation, jaundice (intrahepatic consistalic jaundice), pancrealitis,

sialadenitis Central Nervous System: dizziness, vertigo, paresthesias, headache, xanthopsia Hematologic leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia Hematologic leukopenia, agranulocytosis, informocytopenia, apiconolicarbiturates, or Cardiovascular orthostatic hypotension (may be aggravated by alcohol, barbiturates, or

Hypersensitivity purpura photosensitivity, rash urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis), fever, respiratory distress including pneumonitis, anaphylactic reactions

Other, hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restless-ses, transient blurred vision. Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced.

or therapy withdrawn DOSAGE AND ADMINISTRATION: The dosage must be determined by individual titration

(see boxed warning)
Hydrochlorothiazide is usually given at a dose of 50 to 100 mg per day. The initial dose of

propraciolistic flate is usually given at a touse or position to pred buy, the immatuse of propranciols 40 mg twice daily and it may be increased gradually until optimum blood pressure control is achieved. The usual effective dose is 160 to 480 mg per day. One to two INDEFIDIE tablets twice daily can be used to administer up to 320 mg of propranciol and 100 mg of hydrochlorothiazide. For doses of propranciol greater than 320 mg, the combination products are not appropriate because their use would lead to an excessive dose of the thiazide component.

When necessary, another antihypertensive agent may be added gradually beginning with 50 percent of the usual recommended starting dose to avoid an excessive fall in blood

OVERDOSAGE OR EXAGGERATED RESPONSE: The propranoiol hydrochlorid INDERAL) component may cause bradycardia, cardiac failure, hypotension, or bronchospasm.

The hydrochlorothiazide component can be expected to cause digresis. Lethargy of vary

The hydrochlorothazde component can be expected to cause diuresis. Lethargy of varying degree may appear and may progress to come within a few hours, with minimal depression of respiration and cardiovascular function, and in the absence of significant serum electrolyte changes or dehydration. The mechanism of central nervous system depression with thiazde overdosage is unknown. Gastrontestinal irritation and hypermotility can occur, especially in patients with impairment of renal function. TREATMENT: The following measures should be employed. GENERAL—If ingestion is, or may have been recent, evacuate gasinc contents taking care to prevent pulmonary aspiration. BRAD CARDIA—Administer airopine (i) 25 to 10 mg, Ill there is no response to vagature of the content o ally of short duration, these may require symptomatic treatment. ABNORMALITIES IN BUN. AND/OR SERUM ELECTROLYTES—Monitor serum electrolyte levels and renal function; institute supportive measures as required individually to maintain hydration, electrolyte bal-

ance, respiration, and cardiovascular-renal function in Home Supplice No. 476—Each INDERIDE* 40/25 tablet contains 40 mg proprianclel hydrochloride (INDERAL*) and 25 mg hydrochlorothiazide, in bottles of 100 and 1,000. Also in unit dose package of 100. No. 476—Each INDERIDE* 80/25 tablet contains 80 mg proprianclel hydrochloride (INDERAL*) and 25 mg hydrochlorothiazide, in bottles of 100 and 1,000. Also in unit dose package of 100.

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REVIEW ARTICLE

When Is Hypertension Due to Pheochromocytoma?

L. F. AMOROSA, M.D., and A. K. KHACHADURIAN, M.D., Piscataway*

Pheochromocytoma may present as asymptomatic hypertension or as a crisis with major hypertensive complications. Diagnostic studies may be confounded by antihypertensive therapy and stress. The possibility of a pheochromocytoma is increased if a therapeutic trial with alphaadrenergic blocking agents produces a sustained reduction in blood pressure.

7 hen characteristic symptoms are present, pheochromocytoma readily is diagnosed and cured by surgery. However, many tumors remain occult and have a potential to produce a subarachnoid hemorrhage or acute pulmonary edema whenever provoked by emotions, trauma, surgery, or childbirth. Based on national statistics there are approximately 1000 patients harboring pheochromocytomas among New Jersey's one million hypertensives. Opinions differ on how to screen for this rare tumor. Some authors urge biochemical screening of every new hypertensive patient notwithstanding economic considerations.1 Others suggest that hypertensive patients should be treated first and observed longitudinally for the signs of secondary hypertension.2 This review discusses how pheochromocytoma can be recognized either at the onset or during the long-term care of hypertensive patients and the preferred diagnostic tests used to screen and establish the diagnosis.

CLINICAL CHARACTERISTICS

Age—pheochromocytomas occur at all ages ranging from the first to the ninth decade.³ Since essential hypertension is uncommon before the age of 25, pheochromocytoma must be considered in a young hypertensive patient. Thus, the Joint National Committee on the Management of Hypertension has recommended that all newly diagnosed hypertensive patients younger than 30 years of age should be screened for pheochromocytoma.²

Family History—approximately 10 percent of pheochromocytomas are associated with variable manifestations of the familial multiple endocrine neoplasia (MEN) syndromes. MEN type II includes medullary carcinoma of the thyroid, pheochromocytoma, and parathyroid hyperplasia. Additional clinical features of MEN II in some families include neuromas of the skin, mouth and tongue, and Marfanoid habitus. Recently a familial association with islet cell tumors of the pancreas has been reported. Pheochromocytoma also is found in patients with familial neurofibromatosis of von Recklinghausen and the retinal and cerebellar angiomatosis known as the von Hippel-Lindau syndrome. Familial pheochromocytomas also can occur without other endocrine tumors and usually are evident before age 25.

Symptoms and Signs—the clinical manifestations of pheochromocytoma are caused by the sustained or intermittent secretion of catecholamines and are protean and nonspecific (Table 1). Paroxysmal hypertension accompanied by the typical symptom triad of severe headaches, palpitation and excessive sweating is found only in 50 percent of the patients. Paroxysms can occur spontaneously or may be

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"Orthostatic hypotension is seen in over 50 percent of the patients with pheochromocytoma."

Table 1 Clinical Evidence Suggestive of Pheochromocytoma in Hypertensive Patients

Paroxysms*
Palpitations*
Pallor
Pigmentation

Paradoxical response to Propranolol

Polycythemia Progression of Hypertension Hypertension in youth Headaches* Hypermetabolism

Hypotension*: Orthostatic Hypercalcemia or Hyperparathyroidism especially with Medullary CA

Hyperglycemia
Hepatitis-like symptoms:
anorexia, fatigue
(gallstones)

*Spontaneous or associated with exercise, trauma, childbirth, induction of anesthesia, or surgery

precipitated by acute stress which causes the secretion of catecholamines. Forty percent of patients have sustained hypertension which often is indistinguishable from essential hypertension. The remaining 10 percent of patients do not have hypertension and paroxysmal complaints may be the only symptoms suggestive of the presence of a tumor.

Symptomatology may be bizarre and misleading. Micturition syncope can be associated with bladder pheochromocytoma. Chronic vasoconstriction mediated by excessive catecholamines may cause transudation of plasma water and hypovolemia resulting in pallor, weakness, fatigue, and anorexia which mimic a viral infection or anieteric hepatitis. Decreased bowel motility, with severe constipation, especially in children, may suggest the diagnosis of Hirschsprung's disease. Personality changes, irritability, and depression also may occur. The presence of the above symptoms in a hypertensive patient should increase the index of suspicion for pheochromocytoma.

Orthostatic hypotension is seen in over 50 percent of the patients with pheochromocytoma. It is a result of depleted intravascular volume and depressed sympathetic reflexes. Evidence of hypermetabolism such as weight loss, tachycardia, and tremor in the absence of hyperthyroidism, suggest catecholamine excess. Cutaneous signs are found in 10 percent of pheochromocytoma patients. These include café-au-lait spots, neurofibromas, and telangiectasia. The presence of a firm thyroid mass in a hypertensive patient introduces the possibility of medullary carcinoma of the thyroid and its familial association with pheochromocytoma. Advanced hypertensive retinopathy indicates a malignant course and should initiate a search for a curable pheochromocytoma. Gallstones have been found to be associated with pheochromocytoma 3,6 and fatal paroxysms have occurred during exploration of the common duct.

The routine laboratory investigation of the hypertensive

"Hypertensive patients who fail to respond to the usual drug regimens, or who develop a paradoxical pressor response to propranolol treatment should be suspected of having a pheochromocytoma."

patient may yield clues which suggest further screening for pheochromocytoma. A high hematocrit may be due to erythropoietin-like substances produced by the tumor or to the reduced plasma volume. Hypercalcemia may result from production of a parathyroid hormone-like substance or catecholamine-induced secretion of parathyroid hormone.7 Because of the possible coexistence of parathyroid hyperplasia with pheochromocytoma, elective neck exploration for hypercalcemia in a hypertensive patient should be done only after appropriate studies for the pheochromocytoma are completed. Carbohydrate intolerance coincident with the onset of hypertension also may suggest a common etiology of the hyperglycemia and hypertension. However, the high prevalence of diabetes in the adult population would make indiscriminate screening of every hypertensive diabetic inappropriately costly.

Hypertensive patients who fail to respond to the usual drug regimens, or who develop a paradoxical pressor response to propranolol treatment should be suspected of having a pheochromocytoma. Beta adrenergic blockers such as propranolol antagonize the vasodilatory effects of excessive catecholamines and potentiate their alpha or vasoconstrictor action. This paradoxical increase in blood pressure after propranolol has been reported to cause pulmonary edema.8 The vasodilator hydralazine and the autonomic ganglionic blocker guanethidine also are known to precipitate paroxysms in the presence of pheochromocytoma. Hydralazine-induced vasodilation may result in a reactive release of catecholamines by a mechanism similar to that occuring with the induction of anesthesia. Guanethidine releases preformed catecholamines before it begins its hypotensive effect and may produce a paroxysm.

CHEMICAL METHODS OF DIAGNOSIS

Commonly used tests are based on determination of urinary-free catecholamines and their metabolites, vanillymandelic acid (VMA), and metanephrines (Figure 1). Table 2 shows the normal range, reliability, and interfering substances of the tests for urinary catecholamines. Values listed for VMA and metanephrine are obtained by specific chromatographic and spectrophotometric methods which have eliminated significant interference by dietary products or drugs with catecholamine-like structures. Fluorometric methods for VMA are not reliable because they measure phenolic compounds in the diet which increase the upper limit of VMA to values greater than 6.8 mg/24 hr.

Gitlow has advocated the measurement of total urinary metanephrines expressed as micrograms per milligram of creatinine in the first morning urine sample as a screening test for pheochromocytoma. Using the spectrophotometric method of Pisano¹o without dietary or therapeutic restrictions the aliquot of the first urine specimen was positive for

Figure 1-Catecholamine Metabolism

MAO: Monoamine oxidase

tumor in all of Gitlow's 92 patients. False-positive results occurred in one patient only. In the absence of the interfering substances listed in Table 2, values between 1.0 and 2.2 are suspicious and values greater than 2.2 mcg usually are

indicative of tumor. 9.11.12 Confirmation of the diagnosis to exclude false-positive result is obtained by measuring VMA by a specific assay in a urinary aliquot or a 24-hour sample.

If the clinical suspicion of pheochromocytoma remains

Test	Range		Reliability		Interfering Factors**		
	Normal	Pheo	False (–)	False (+)*	increase	decrease	
Total Metanephrines					MAO inhibitors Chlorpromazine	X-ray contrast	
mg/24 hours ug/mg Cr	<1.3 <1.0	2.5-40 >2.2	0-15%	<2%	Methyl Dopa Levodopa	methyl glucamine (Renovist) [®]	
VMA mg/24 hours	< 6.8	10-250	3-30%	< 5%	Lithium	MAO inhibitors	
ug/mg Cr	<3.5				Levodopa Leritine Nalidixic Acid Nitroglycerine	Clofibrate Pargyline Ethanol	
Free					A11 .		
Catecholamines ug/24 hours	< 100	200-4000	0-20%	< 2%	foods: bananas,	ncrease	
ug/mg Cr	0.08-0.23	200-4000	0-20%	\ 270	chocolate, tea, co drugs: Methyl Do Sympathomimetic Decongestants, B	offee, vanilla pa, Levodopa, s including: tronchodilators, late, PAS, Muscle ne, Quinidine,	

hult mer screening studies are negative, measurement of anity-free catecholamines may be helpful. Since excretion of free catecholamines varies diurnally, a 12- or 24-hour specimen will be necessary. Positive results should be reproducible under nonstressful conditions with the dietary restrictions listed in Table 2.

In patients without sustained hypertension, urinary metanephrines, VMA, or free catecholamines may be elevated only after paroxysms. The collection periods should be 6 to 12 hours because catecholamine metabolites appear in urine only after some delay. Rarely, only one of the three catecholamine studies will be consistently abnormal.

Radioenzymatic determination of serum catecholamines recently has been advocated by the Cleveland Clinic Group as the study of choice.¹³ Though only one patient in their latest series of 23 with proven tumors had normal serum catecholamines, the assay seems overly sensitive with 30 percent false-positive results. The method has been introduced by commercial laboratories but the general experience with these assays seems too limited to recommend their routine use.

THERAPEUTIC TRIALS

Difficulties in laboratory diagnosis may persist in spite of the use of several tests. This is more likely to occur in patients who have multiple conditions in which catecholamine metabolites physiologically are elevated secondary to acute or chronic stress. These conditions include accelerated hypertension treated with multiple agents, subarachnoid hemorrhage, and other causes of increased intracranial pressure. Under these circumstances a presumptive diagnosis of pheochromocytoma still can be made if the blood pressure responds to treatment with the alpha-adrenergic blocking agents, phentolamine (Regitine®) or phenoxybenzamine (Dibenzyline®). These agents antagonize the action of circulating catecholamines but usually do not alter the course of essential hypertension or the increased sympathetic tone associated with increased intracranial pressure.

Therapeutic trial with alpha-blockers also should be considered whenever blood pressure reduction is urgent or there is a failure to control malignant hypertension with tradi-

tional therapy. However, the nonspecific vasodilator nitroprusside usually is effective for all forms of hypertension but its use in pheochromocytoma may be complicated by arrhythmias because of the unblocked effects of catecholamines on the myocardium. Clinical judgment must dictate when there is time and justification for a trial with alpha-blockers rather than immediate therapy with nitroprusside (Figure 2).

The therapeutic trial with phentolamine is performed by intravenous infusion of 10 mg dissolved in 250 ml of 5 percent dextrose. The infusion is begun at the rate of 40 mcg/min while the blood pressure is monitored every 20 seconds. The rate is increased steadily until the blood pressure drops or the entire solution has been infused over 20 minutes. If the response is nonconclusive, the test can be repeated using 20 mg of phentolamine. Norepinephrine (8 ug/ml) and normal saline for volume restoration should be available in the rare event of a precipitous response. When clinical circumstances permit, the trial may be performed orally with phenoxybenzamine. An initial dose of 10 mg is increased by 10 mg every 12 hours until the blood pressure drops. If no significant improvement occurs after three days, the test may be terminated. The average effective doses of phenoxybenzamine is 60 mg daily given in divided doses but as much as 2 mg/kg may be required in some patients. Tachycardia and arrhythmia may persist during alpha blockade of a pheochromocytoma because of the beta action of catecholamines.

Twenty-five percent of patients with essential hypertension may have a nonspecific lowering of the blood pressure in response to alpha-blockers. Therefore, diagnostic catecholamine assays still are necessary after the patient has been stabilized with alpha-blocking agents. Neither alphanor beta-blockers interfere with catecholamine assays but these drugs may produce small physiological increases in catecholamine secretion. However, these increases are not large enough to cause false-positive results in most patients.

The phentolamine test performed by bolus injection and the provocative histamine test now are considered contraindicated unless repeated urinary studies for catecholamine metabolites are negative. These tests are dangerous and only

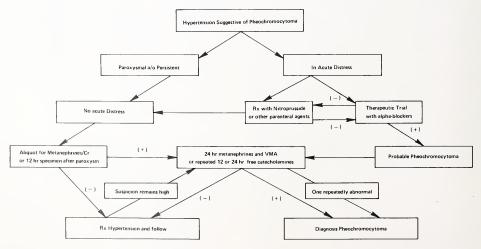


Figure 2-Diagnosis of Pheochromocytoma

should be performed by the experienced endocrinologist when the suspicion of pheochromocytoma remains extremely high, such as in hypertensive patients with a family history of pheochromocytoma or MEN II who have normal urinary catecholamine studies. False-positive results can occur with phentolamine and histamine can cause severe headaches. The glucagon test has not been used widely because of the frequency of false-negative results. Diagnostic accuracy is increased if serum catecholamines are measured following its injection.¹³

MEDICAL TREATMENT

Whenever the diagnosis of pheochromocytoma has been established, therapy with phentolamine or phenoxybenzamine should be instituted and intravascular volume restored to normal before further studies are done. As noted above, therapy with propranolol and other beta-blockers alone can produce a paradoxical effect on blood pressure. Treatment with these agents should be considered only after an effective alpha blockade. Alpha-methyltyrosine, an inhibitor of catecholamine synthesis, recently has been released for the symptomatic treatment of patients with metastatic tumors. The new antihypertensive drug prazosin (Minipress®) has been found to block selectively the alpha1 receptor. 14,15 The specific action prevents the vasoconstrictor effect of norepinephrine while permitting the catecholamine to have an auto-inhibitory effect on its own release. These new drugs may prove to be useful and safe agents in the medical management prior to surgery.

SUMMARY

Hypertensive patients with significant symptomatology or signs of advanced hypertensive disease should be suspected of harboring a pheochromocytoma. Though hypertensive paroxysms associated with headaches, tachycardia, and diaphoresis are typical of pheochromocytoma, at least half of the patients may have vague nonspecific complaints associated with persistent hypertension. Multiple endocrine neoplasia (MEN) syndromes and neurocutaneous disorders are found in 10 percent of patients with pheochromocytomas. Hypertension due to pheochromocytoma can vary significantly in response to orthostatic maneuvers and may cause malignant hypertensive complications. Routine antihypertensive therapy is often ineffective and agents such as propranolol, hydralazine, and guanethidine may produce paradoxical effects.

The diagnosis is established by demonstrating elevated urinary excretion of catecholamine metabolites. A simple screening test consists of measuring metanephrines in an aliquot of urine and expressing the results in mcg/mg creatinine. However, in severe stress, catecholamine excretion may be elevated and a therapeutic trial with an alpha-

"Whenever the diagnosis of pheochromocytoma has been established, therapy with phentolamine or phenoxybenzamine should be instituted . . ."

blocking agent may be useful. These drugs produce a sustained fall in blood pressure in patients with pheochromocytoma and do not interfere with catecholamine assays needed to confirm the diagnosis.

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STATE OF THE ART

Radiology of Pheochromocytomas*

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The clinical presentation of the patient with a pheochromocytoma may predict the location of the tumor(s). Noninvasive imaging of suspected areas by Computed Tomography (CT) safely and easily can confirm tumor localization with a resolution comparable to angiography.

heochromocytomas occur sporadically or as part of a familial syndrome. These presentations can be differentiated by clinical features such as the patient's age, family history and evidence of other endocrine tumors or neurocutaneous diseases. Ascertaining whether a pheochromocytoma is sporadic or familial in origin is useful in predicting the location of the tumor(s).

Ninety percent of pheochromocytomas are sporadic or nonfamilial. The patient's age at presentation is usually between 40 and 60. The tumor is likely to be confined to one adrenal gland, more often the right. About 15 percent of patients with sporadic tumor have a bilateral or extraadrenal pheochromocytoma. 1-2

Familial pheochromocytomas occur in two distinct clinical patterns, both transmitted by an autosomal dominant gene. These are the syndrome of multiple endocrine neoplasia (MEN) type II and simple familial pheochromocytoma. In MEN type II, pheochromocytoma is associated with medullary carcinoma of the thyroid, parathyroid hyperplasia and occasionally oral and cutaneous neuromas. Symptomatic pheochromocytomas usually are apparent between the ages of 25 to 40 and the tumors are nearly always bilateral and intraadrenal. In rare cases a unilateral tumor coexists with medullary hyperplasia in the other gland. Hyperplasia is thought to be a precursor of the tumor. Simple familial pheochromocytoma presents with sustained hypertension in the young. The average age of diagnosis is 20. The tumors are

commonly bilateral and extraadrenal and may recur following surgery. Similar characteristics are found in children and adolescents who may have sporadic pheochromocytomas, sometimes bilateral, also can occur in patients with neuroectodermal disorders such as familial neurofibromatosis of von Reckinghausen or in retinal and cerebellar angiomatosis described by von Hippel and Lindau.⁷

The Table shows the probability of finding a pheochromocytoma in a particular location based on the patient's clinical presentation. Occasionally familial syndromes become apparent only when the surgeon encounters multiple pheochromocytomas at exploration or fails to cure the patient because one or more pheochromocytomas were not found. Thus an effort to localize pheochromocytomas prior to surgery is indicated and reasonable in all patients.

Extraadrenal pheochromocytomas usually arise adjacent to sympathetic ganglions and are called paragangliomas or ectopic pheochromocytomas. In the abdomen, para-

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Table Anatomical Location of Pheochromocytoma Related to Clinical Presentation Familial Sporadic Children-Adults MENII Adolescents 85% Single, Adrenal 45% 0 90% Bilateral, Adrenal 5% 25% 10% 30% 10% Extraadrenal single or multiple, with or without intraadrenal tumor(s) 25% Malignant 10-15% uncommon *Data accumulated from References 1, 2, 3, 4, 5

gangliomas most comonly are found along the aorta, at the organ of Zuckerkandl² and in the urinary bladder where they may produce paroxysms associated with micturition. Paragangliomas in the pelvis easily may be misdiagnosed as uterine fibroids.

One percent of pheochromocytomas present as paragangliomas above the diaphragm. These are found in the thorax, in the neck or associated with cranial nerves. The thoracic tumors may be visualized along the posterior mediastinal sympathetic chains by lateral views of the chest. Careful physical evaluation of the neck, auditory canals and cranial nerves may uncover the tumors in these areas. Ten to 15 percent of sporadic pheochromocytomas are malignant with demonstrable metastases either locally or in the lung and liver.

This frequency may be higher in familial tumors.

LOCALIZING TECHNIQUES

Intravenous urography and/or angiography have been used in the past to localize pheochromocytomas preoperatively (Figure 1). Though these contrast studies are potentially provocative stimuli, their risks have been reduced by treating patients with adrenergic blocking agents. Oral phenoxybenzamine is given to normalize blood pressure and the reduced plasma volume typical of pheochromocytoma is restored fully prior to procedures. A secure intravenous portal should be available for administration of phentolamine, rapid fluids or norepinephrine if a marked hypertensive-hypotensive response occurs with injection of contrast. Thus, imaging pheochromocytomas with contrast studies requires careful preparation and monitoring.

Some centers prefer selective venous catheterization for measurement of catecholamines to localize tumors. This study may be less provocative than angiography if excessive venography is avoided but venous sampling is tedious, technically more difficult and requires experience with serum catecholamine determinations. Venous sampling is a potentially useful tool for studying suspected extraadrenal pheochromocytomas and for detecting these tumors after they have evaded imaging modalities or initial attempts at surgical cure. Sampling from the adrenal veins also may be diagnostic of adrenal medullary hyperplasia.4

Computed Axial Tomography (CT) and ultrasonography now are being utilized widely to define and localize disease in areas which until recently were difficult to visualize (Figures 2 and 3). Several groups now believe that CT scanning is the ideal technique for localizing pheochromocytomas. 11.12.13 The study is easy, safe and noninvasive and less expensive than angiography. 14.15 The risk of intravenous contrast administration is avoided because contrast agents may not

"... imaging pheochromocytomas with contrast studies requires careful preparation and monitoring."

enhance CT imaging of pheochromocytomas. 11.12 CT can detect tumors with one cm diameter in the adrenals. 12.16 Paragangliomas larger than three cm. have been found in the retroperitoneum, mediastinum and pelvis. 9.12 Continued technological improvement inevitably will allow CT scanning with even higher resolution of all tumor-bearing areas.

Ultrasonography also has been helpful in imaging adrenal masses. An expert ultrasonographer can identify an adrenal tumor as small as 1.3 cm with this technique.¹⁷ Pheochromocytomas are usually larger than three cm and these are detected easily. A large comparative series has shown ultrasonography in very skilled hands to be equal to CT in evaluating adrenal pathology.¹⁸ However, because CT is accurate and far easier than ultrasonography, the former probably will evolve as the preferred procedure for demonstrating adrenal tumor.¹⁹ This recommendation may be modified in a few years as digital fluoroscopy, another non-invasive computerized method, becomes available.

Both CT and ultrasonography easily can demonstrate renal size and contour. If there is a question of kidney involvement by the pheochromocytoma or of compromised renal function, then a radioisotopic renogram and scan should be done. These studies can assess bilateral renal function in case the surgeon must consider removing a kidney with the pheochromocytoma. Intravenous injection of radioisotopic reagents have not caused the vasomotor reactions associated with intravenous urographic contrast material.

Radioisotopic scanning as a method to diagnose and localize pheochromocytoma recently has been reported. 20,21 This method is specific and perhaps more sensitive than CT scan, but it does not delineate the anatomical relationship of tumor to adjacent structures. At this time, the availability of the method is limited and more general experience is necessary before its usefulness and indications are known fully.

Whenever the diagnosis of pheochromocytomas has been established by urinary catecholamine measurements, cost and risk factors should be considered before ordering an array of radiologic studies likely to give repetitive information. Additional CT will localize over 90 percent of pheochromocytomas. Additional studies are reserved for patients suspected of having extraadrenal tumors. Figure 4 summarizes these recommendations. Failure to demonstrate tumor with this approach or persisting hypertension associated with catecholamine excess after surgery is an indication for venous sampling or selective angiography of the clinically suspected tumor-bearing areas.

SUMMARY

Intravenous urography and angiography have been useful in the past in localizing pheochromocytomas preoperatively, but these studies have the risk of contrast-induced paroxysms.



Figure 1—Selective right adrenal arteriogram demonstrates highly vascular mass.

Imaging the retroperitoneum by Computed Tomography (CT) and ultrasonography is safe and simple. These methods can localize a pheochromocytoma without risk. CT can find tumors of one cm diameter within the adrenal glands and three cm extraadrenal tumors. Ultrasonography in skilled hands can image adrenal tumors of less than two cm diameter. Because CT technically is easier than ultrasonography, the former probably will evolve as the preferred procedure for demonstrating adrenal pathology.

Clinical factors such as age, family history and evidence of neurocutaneous disease can be used as a guide for CT scanning the area(s) most likely to contain a pheochromocytoma. Venous sampling is indicated for studying suspected ectopic pheochromocytoma, for localizing such tumors when imaging and/or surgery have failed and for confirming the diagnosis of adrenal medullary hyperplasia.



Figure 2—CT scan of upper abdomen demonstrates a large left adrenal mass (long arrow), hepatic mass (arrow-heads) and destroyed rib with associated soft tissue mass.

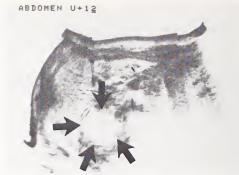
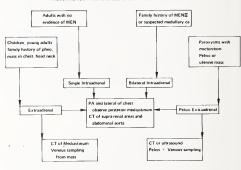


Figure 3—Ultrasonography (transverse section, 12 cm above umbilicus); a 6 cm right adrenal tumor.

X-RAY PROTOCOL FOR LOCALIZING SUSPECTED PHEOCHROMOCYTOMAS BASED ON THEIR CLINICAL SETTING



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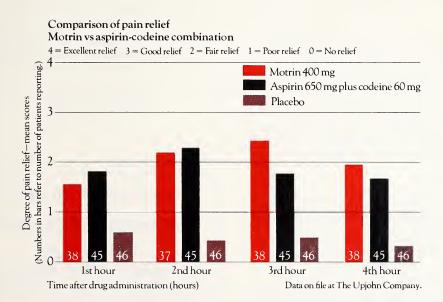
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CASE REPORTS

Infant Botulism in Central New Jersey

NIRANJAN AMARAM, M.D., BIPIN PATEL, M.D., PHOTINI S. PAPAGEORGIOU, M.D., HEMANT H. KESARWALA, M.D., New Brunswick*

Infant botulism has gained prominence in recent years as a significant disease entity. A number of cases have been reported to the Center for Disease Control, particularly from California. The clinical features resemble sepsis and aminoglycoside antibiotics may potentiate the respiratory paralysis seen in infant botulism. We are reporting three cases of infant botulism from central New Jersey.

nfant botulism is the newly recognized form of botulism that results when spores of clostridia germinate and then multiply in the gut and produce botulinal toxin in vivo. In conventional botulism, illness is an intoxication that results from eating food that already contains botulinal toxin. The first case of human infant botulism, proved by laboratory examination, now is known to have occurred in California in 1931. As of March 29, 1981, 188 cases of infant botulism have been reported in the USA. From 1977 to the present only five cases were reported from New Jersey (personal communication from Dr. Rosenfelda, New Jersey Department of Health).

Clostridium botulinum is a gram-positive, spore-bearing, anaerobic bacterium, whose spores are ubiquitous in soil and commonly are present on fresh fruits, vegetables and other agricultural products. Botulinal toxin is the most potent poison known.² With one exception, all the cases of infant botulism have been caused by either type A or B botulinal toxin.^{4.5} Although the age range of patients reported was one to 38 weeks, most of the cases were eight to eleven weeks old.^{4.5} Of all the foods listed, honey was the only significant risk factor with the type B cases.⁶

The clinical spectrum of the disease varies from mild inapparent infection to a fulminant lethal form. Invariably, the first indication of illness is constipation.^{7,8} These infants

become lethargic, listless and sleepy. Appetite is diminished with poor suck and gag reflexes. The cry becomes weak and the spontaneous activity is diminished. The paralysis descends, involves bulbar and spinal musculature and produces extensive flaccid paralysis within two to three days.\(^8\) Recovery of the muscular strength usually starts in a few weeks and is a slow and steady process. About one-third of hospitalized California cases had respiratory arrest after admission. There is suggestive evidence that infant botulism is the cause in some cases of sudden infant death syndrome.\(^{1.9.10}\)

The treatment of infant botulism consists of supportive care with particular attention directed to nutrition and respiratory support. Tube feeding is well tolerated and may stimulate peristalsis.⁷ The need for botulinal antitoxin or antibiotics is not defined.⁸ There is some evidence implicating parenteral aminoglycoside antibiotics as factors excerbating the paralysis.¹¹ For the infants diagnosed and hospitalized, the prognosis is excellent for complete recovery.¹ The recovery seems to occur by the formation of new motor end plates.¹² We report three cases of infant botulism from central New Jersey. Identification of botulinal toxin in the stools was made in two cases.

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^aChief, Communicable Disease Epidemiology Program

"Clostridium botulinum is a grampositive, spore-bearing, anaerobic bacterium whose spores are ubiquitous in soil and commonly are present on fresh fruits, vegetables and other agricultural products."

CASE REPORTS

Case 1—A previously healthy female infant presented with increasing weakness, weak cry, poor feeding and constipation of four days' duration. She was on Enfamil® feedings and was given honey water for a week in the neonatal period. On initial examination, she was lethargic with a weak cry. Temperature was 99.8°F, heart rate 156 per minute and respiration 36 per minute. She had poor suck and gag reflexes; oral secretions drooled from the mouth. Pupils were sluggishly reactive to light. She was markedly hypotonic with slow deep tendon reflexes. The rest of the physical examination was unremarkable.

Initial hemoglobin was 11.7 gm/dl, Hct 34.3%, WBC 10,800/cu. mm., PMNs 50%, bands 1%, lymphocytes 47%, monocytes 7%, basophils 1% and platelets 163,000/cu. mm. Urinanalysis showed a protein of 1+ and the remainder was unremarkable. Serum calcium was 10.3 mg/dl., BUN 23 mg/dl., glucose 59 mg/dl, CPK 5 units/dl., sodium 139 meq/l, potassium 5.6 meq/l and magnesium 2.2 mg/dl. Chest x-ray was negative. Cerebrospinal fluid (CSF) was clear with protein 43 mg/dl., glucose 47 mg/dl. and 2 lymphocytes. Blood, CSF and urine cultures were negative. Electroenechalogram was normal. Test with edrophonium chloride was negative. Stools contained botulinal toxin and the serum was negative for the same.

Hospital Course—Antitoxin and antibiotics for botulinum were not given. She was managed by supportive care only. Nasogastric feedings were started from the third day of hospitalization and were tolerated well. Her respiratory status was stable. During the third week, she developed right lower lobe pneumonia which was treated with ampicillin and kanamycin. Aspiration pneumonia could not be ruled out. The patient improved from the second week; by the fourth week, she was well enough to suck from a bottle and was completely recovered in five weeks.

Case 2-A six-week-old, previously healthy infant girl developed constipation, lethargy and loss of head control prior to hospitalization. She was on formula feeding, but had not eaten. The initial physical examination revealed a lethargic, floppy infant with loss of head control. Her temperature was 98.2°F, heart rate 140 beats per minute and respiratory rate 50 per minute. The sucking and gag reflexes were absent. There was generalized hypotonia with diminished deep-tendon reflexes. Initial blood count showed Hgb 14 mg/dl., Hct 41%, WBC 12,700 cu. mm., PMNs 42%, lymphocytes 51%, monocytes 4% and eosinophils 3%. The chemistry profile was unremarkable. Arterial blood gases on admission showed a PH 7.41, PCO2 46, PO2 43. Acetonuria was present but the urinalysis otherwise was unremarkable. Cerebrospinal fluid was clear with protein 32 mg/dl., glucose 42 mg/dl. and 3 RBC. Cultures of urine, "The clinical spectrum of the disease varies from mild inapparent infection to a fulminant lethal form. Invariably, the first indication of illness is constipation."

blood and cerebrospinal fluid were negative. The edrophonium chloride test was negative. The stools were positive for botulinal toxin but the serum, formula and the well water used for making the formula were negative for the same.

Hospital Course—At the time of admission, sepsis was suspected and the patient was started on ampicillin and gentamicin. After establishing the diagnosis, she was managed only with supportive care. She was gavage fed for three weeks. Her respiratory status remained stable throughout. She started improving by the second week and was well by the fifth week.

Case 3-A three-week-old girl was hospitalized with a history of constipation, weak cry, lethargy and poor sucking of two days' duration. The perinatal period was uneventful. She was on Similac® feedings but was not given honey at any time. Initial physical examination revealed a lethargic, hypotonic neonate with poor moro and suck reflexes. Admission vital signs showed a temperature of 98.6°F, respiratory rate 39 per minute and pulse rate 140 per minute. The deep tendon reflexes were diminished. The laboratory tests showed Hgb 17.1 gm/dl., Hct 50.1%, WBC 10,400 cu. mm., PMNs 22%, lymphocytes 69%, monocytes 7%, eosinophils 1% and basophils 1%. Urinanalysis was within normal limits. Blood glucose 56 mg/dl., BUN 19 mg/dl., sodium 145 meq/1, potassium 5.3 meq/1, chloride 103 meq/1 and serum bicarbonate 19. Spinal fluid protein was 29 mg/dl, glucose 40 mg/dl. and there were no cells. The blood, cerebrospinal fluid and urine cultures were negative. Chest x-ray was negative. Urine for metabolic screening was negative. Edrophonium chloride test was negative. T, and T₄ were within normal limits. Electromyogram at low repetitive stimulation frequency of two to five stimulations per second showed a decline in the amplitude of the complex motor action potentials with resumption of the initial amplitude after several stimulations. When the frequency of the repetitive stimulation was increased to 20 or 50 stimulations per second there was the characteristic increase in the complex motor action potential. The combination of these findings were compatible with botulism.

Hospital Course—An initial diagnosis of sepsis was made and she was started on ampicillin and kanamycin. With the characteristic clinical and EMG findings and absence of other causes of hypotonia, the possibility of infantile botulism strongly was entertained. Botulinal toxin could not be identified in the stools. She was managed with supportive care alone. Initially she was fed through a nasogastric tube and started improving by the second week; by early in the third week she was able to suck from the nipple. Her respiratory status remained stable throughout. In four weeks, she completely recovered.

"There is some evidence suggesting that aminoglycoside antibiotics may potentiate muscular weakness and precipitate respiratory failure in infant botulism."

DISCUSSION

From our experience of these three cases of infantile botulism, the following observations can be made. Unlike the other series, all of our patients were girls. The age range was three weeks to three months. Although the cases in the Mortality Morbidity Weekly Report were from the age one to 38 weeks, the median age was two and a half months.5 Constipation was the initial symptom in all the cases. Poor feeding, lethargy and hypotonia were the presenting symptoms in our cases. The duration of these symptoms was two to five days. A history of ingestion of honey was obtained in only one patient. The initial physical examination consistently showed a lethargic, markedly hypotonic floppy infant with head lag and poor sucking and gag reflexes. The deep tendon reflexes (DTR) were sluggish in all our cases. This is in contrast to Johnson's series where DTR were intact.8 All of our patients had normal temperature. The initial white cell count ranged from 10,000 to 12,700 with normal differential in two and lymphocytosis in the third. The chemistry profile, the spinal fluid chemistry and the cell count were normal in all of our cases. Clostridial toxin was identified from the stools of two patients. The respiratory status of all our patients remained stable and they did not need respiratory support. This is in contrast to the observation of other workers. One-third of hospitalized cases had respiratory arrest after admission and over three-quarters of these infants needed at least some mechanical ventilation support.7

The initial diagnosis of all three infants was sepsis and all were treated initially with ampicillin and an aminoglycoside (kanamycin or gentamicin). There is some evidence suggesting that aminoglycoside antibiotics may potentiate muscular weakness and precipitate respiratory failure in infant botulism. In our patients, there were no obvious adverse effects from aminoglycosides. None of our cases was given botulinal antitoxin or specific antibiotics. The infants were treated with supportive care aimed at maintaining the nutritional status. The nasogastric feedings were well tolerated.

Clinical improvement was noted two weeks after hospitalization and by three weeks all were able to feed from the bottle. They completely recovered by the fifth week. One of our patients developed right lower lobe pneumonia either secondary to aspiration or a nosocomial infection.

SUMMARY

We have reported three cases of infant botulism seen in our hospitals in the past two years. All were female infants of three weeks to three months of age with constipation, lethargy and poor feeding as the presenting symptoms. The initial physical examination consistently revealed a lethargic, hypotonic infant with poor suck and gag reflexes and diminished deep tendon reflexes. The CBC, serum chemistry, urinanalysis, chest x-ray and CSF chemistry and cytology were unremarkable. The respiratory status remained stable. Nasogastric feedings were well tolerated. They were not given botulinal antitoxin or specific antibiotics. The improvement was seen in two weeks and by five weeks they were completely well.

Acknowledgement: We thank Dr. George Brennan and Dr. Robert Rabinowitz for permission to include their cases.

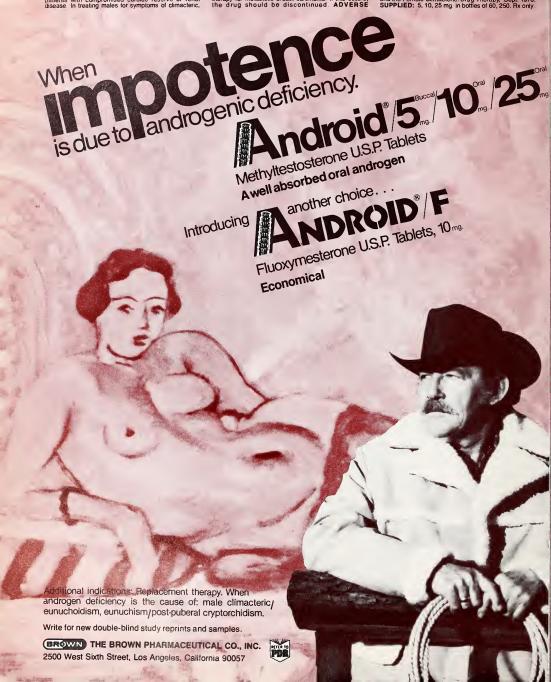
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REACTIONS: Cholestate jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia decreased ejaculatory volume • Hypercalcemia with the control of the control



Electrodiagnosis in the Evaluation of Progressive Hypotonia in Infancy with Particular Reference to Infant Botulism

GLORIA O. SCHRAGER, M.D., MARTIN DIAMOND, M.D., S.Z. ROSNOWSKI, M.D., S.P. WARAN, M.D., Summit*

Until recently, only two etiologies of botulism were recognized: the ingestion of botulism toxin found in improperly preserved food and the absorption of botulinal toxin from infected wounds. Infant botulism represents a third type: the colonization of infant gut by C-botulinum with absorption of minute quantities of toxin producing a clinical syndrome which can vary from mild hypotonia to a fulminant course with sudden infant death. The usefulness of electrodiagnostic techniques in the early evaluation of infant botulism and other causes of progressive hypotonia is described.

nfant botulism presents with neuromuscular manifestations which can progress rapidly to life-threatening respiratory involvement. It is, therefore, important to distinguish this disease from other causes of progressive hypotonia whose management differs considerably. The usefulness of electrodiagnosis in the early evaluation of progressive hypotonia has not been appreciated fully in the pediatric literature. This, in part, has been due to an unfamiliarity with the procedure itself and a lack of understanding of the neurophysiologic basis of electrodiagnosis.¹

We recently encountered an infant with rapid onset of hypotonia, poor suck reflex, and hyporeflexia. Electrodiagnostic testing on the third hospital day provided the clue to the proper diagnosis which was confirmed several days later by the isolation of Clostridium botulinum and the identification of botulinal toxin, type B in the stool.

CASE REPORT

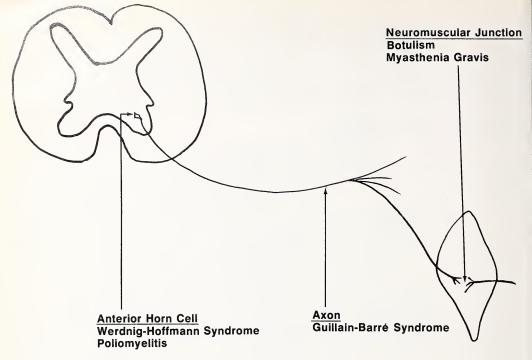
A six-month-old male infant was admitted on November 9, 1980, to Overlook Hospital with a history of progressive weakness, constipation, and poor sucking reflex for the week prior to admission. He was seen by his private pediatrician three days before admission for a routine checkup at which time the mother complained of the aforementioned problems. Because the physician felt he had a viral respiratory infection, a scheduled DPT immunization was withheld. Over the next several days, he showed signs of progressive

generalized descending weakness and constipation. Hospital admission was advised because of the increasing hypotonia.

The infant was the product of a full-term pregnancy. Mother was 32 years old, gravida III, para II, who had a normal spontaneous vaginal delivery. Infant weighed 4678 gm at birth. He was breast-fed exclusively except for ad lib water supplementation. Water was not sweetened with honey or any other sweetener. Growth and development prior to this illness were normal. Family history was negative for neuromuscular disease.

On admission, physical examination revealed a floppy, well-developed male infant. Positive findings were limited to the neurologic examination. The infant was alert, normocephalic, with an open anterior fontanel measuring 2 x 1.5 cm. There was diffuse hypotonia with mild head lag. Cry and sucking reflexes were weak. Gag reflex was absent but facial movements were intact. There were few spontaneous movements of the extremities. Cranial nerve examination did not reveal ocular palsy. Severe symmetrical ptosis was noted. Pupillary findings and fundoscopic examination were nor-

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Figure—The motor unit with localization of pathology in different diseases.

mal. Deep tendon reflexes were hypoactive but symmetrical. There were no pathological reflexes or fasciculations.

Laboratory Examinations: Urinalysis, hemotologic values, and serum chemistry including CBC, CPK, SMA 18, T₃, T₄, FT₄ index, and calcium were normal. The lumbar puncture was atraumatic and revealed 3 white blood cells, 6 red blood cells, a protein of 33 gm/dl and a glucose of 43 mgm/dl with a serum glucose of 83 mgm/dl. Repeat lumbar puncture performed 48 hours later essentially was unchanged. Gram stain and cultures were negative.

The EMG was suggestive of pathology at the neuromuscular junction. Motor conductions to the right median, common peroneal, and tibial nerves revealed diminished amplitudes and normal velocity. Repetitive stimulation of 3 pps showed no decrement while at 50 pps increased amplitude to almost 200 percent was seen. Needle electromyography showed no evidence of fibrillation potentials, positive sharp waves, "myopathic" potentials, fasciculations, or giant polyphasic potentials. Because respirations had decreased to 12 per minute, arterial blood gases were tested on the fifth day of hospitalization. They revealed a pH of 7.47, base excess 1.1; HCO₃ 23.1; CO₂ 32; O₂ saturation 94.3.

The infant was given a trial dose of neostigmine and Tensilon® with no response. Clostridium botulinum with type B botulinal toxin was isolated from the stool during the first week of hospitalization. During the course of his hospitalization, the patient did not require assisted ventilation, but did need nasogastric tube-feeding.

Improvement in tone was very gradual, starting on the 8th day of hospitalization. A weak gag reflex could be elicited by

the time of discharge on the 16th day. The infant was sent home on nasogastric feedings.

The infant did well at home on tube-feedings of breast milk administered by a trained pediatric nurse five times daily. He was maintained in an upright position after each feeding to avoid aspiration. A mechanical aspirator was available at the bedside but was not needed. Gag reflex returned to normal two weeks after discharge, at which time nasogastric feedings were discontinued and breast-feedings were resumed. Deep tendon reflexes and muscle strength remained diminished until four weeks after discharge. The patient presently shows no residua of his disease and developmental milestones are normal.

DISCUSSION

Diseases that affect the motor unit include Werdnig-Hoffmann and acute poliomyelitis which attack the anterior horn cell, Guillain-Barré syndrome which usually attacks the axon myelin sheath, and finally botulism and myasthenia gravis in which the pathology occurs at the neuromuscular junction. In botulism, the toxin appears to inhibit acetylcholine release at the motor end plate so that its action is presynaptic. Contraction is produced when acetylcholine combines with a receptor site on the muscle end plate. In myasthenia, there is antibody bonding to acetylcholine receptor sites, and thus the site of action is postsynaptic.

The sites of pathology in the two diseases differ and consequently the electrodiagnostic findings in each are different. In botulism, the axon and its myelin sheath are uninvolved so that nerve conduction velocity is normal.

Table Differential Diagnosis of Progressive Hypotonia by Electrodiagnostic Studies

Localization of Pathologic Process	Neuromuscular Junction (Myelin Sheath)		Anterior Horn Cell		
	Presynaptic	Postsynaptic			
	Botulism	Myasthenia Gravis	Guillain Barre'	Polio	Werdnig-Hoffmann
Nerve Conduction Velocities	Normal	Normal	Decrease early	Usually normal occasionally slightly decreased	Usually normal occasionally slightly decreased
Amplitude	± Decrease	± Decrease	Normal	Usually normal	Usually normal
Repetitive Stimulation 3/sec		10% Decrease	No change		
50/sec	Greater than 150% Increment	Transient Increment Then Decrement	No change —		
EMG	±Fibrillations, A Potentials (lat		±Fibs, Positive Sharp Waves	Decrease Interfe With Giant Poly	

Since the amplitude of the evoked response depends on the number of functioning muscle fibers and since there is a myoneural block preventing transmission to the muscle fibers, the average amplitude of the motor action potential tends to be diminished. There is, however, overlap with the lower end of the spectrum of normal amplitudes so that amplitude alone is not a reliable indicator. Repetitive stimulation studies are more diagnostic. In botulism, with a low frequency repetitive stimulation at 3 pps, decrement in the amplitude of the evoked response usually is not seen. However, with high frequency stimulation at 50 pps, the neuromuscular block is overcome. Recruitment of muscle fibers occurs, resulting in the motor action potential increasing to at least 150 percent of the initial amplitude. This was the key finding in our case. Variable amounts of fibrillation and myopathic potentials may appear only after several weeks of the disease, so that these findings are not of value in early diagnosis.

In the other disease of the neuromuscular junction, myasthenia gravis, the neuromuscular block usually is more complete so that at 3 pps stimulation there is fatigue of the muscle fibers and a greater than 10 percent decrement in the amplitude (see Table). On 50 pps stimulation a transient increase to roughly 120 percent of normal can occur due to synchronization of muscle fibers, so-called "pseudofacilitation." There is rapid fatigue, however, and a subsequent decrement in the amplitude of the action potentials. Thus, although the site of pathology in both diseases is at the neuromuscular junction, the blocks are of different natures (e.g., pre vs postsynaptic) and electrodiagnostic testing can differentiate between the two.

Unlike botulism, the Guillain-Barré syndrome has electrodiagnostic findings usually indicating a marked decrease in nerve conduction velocities. Since it is a demyelinating process, these changes can occur either early or on repeat examination. Repetitive stimulation at both 3 and 50 pps shows neither decrement nor facilitation. Fibrillation and positive sharp waves may be seen, indicative of denervation

and felt by some to be prognostic of probable motor residua. In cases where facial weakness is evident, conduction studies of the facial nerves show prolonged latency.

Electrodiagnosis in polio and Werdnig-Hoffmann disease is not helpful in the early phases. The motor conduction may or may not be slowed depending on whether or not axonal damage has been severe. However, since there is usually no effect on the myelin sheath the degree of nerve conduction slowing usually is not marked. Amplitude of evoked responses may be diminished. Sensory nerve conduction velocities usually are normal. On electromyography the earliest findings indicate a decrease in recruitment patterns so that the interference pattern (i.e., the number of motor units recruited on maximal contraction) is diminished. After three or four weeks, fibrillation potentials and positive sharp waves may be seen and, in polio, they usually are quite abundant. With longstanding disease, giant polyphasic action potentials (greater than 5 mv amplitude) may be seen.

The effect of botulinum toxin on the neuromuscular junction is devastating. A lethal dose of botulinum toxin in the bloodstream of man has been estimated to be approximately 10.9 mg per kilo of bodyweight. Until recently, only two forms of botulism were recognized; foodborne botulism. which occurs when improperly preserved food containing preformed botulinum toxin is eaten, and wound botulism, resulting when the bacteria of C. botulinum infects and produces toxin in traumatized tissue. The possibility that C. botulinum could colonize the infant gut and produce toxin was not considered seriously as a cause of disease until 1976 when Pickett et al. reported the first 2 cases, identifying C. botulinum toxin and organisms in the patients' feces.2 Since that time, infant botulism has been recognized in North America, Europe, and Australia. Seasonal incidence as yet has not become apparent. Because this disease has been recognized so recently as a clinical entity, the actual incidence of infant botulism at present is unknown. The Center for Disease Control estimates that as many as 250 cases needing hospital care may be occurring in the United States

"The clinical syndrome can vary from the insidious onset of constipation and mild hypotonia, with a mild course not requiring hospitalization to a fulminant presentation resembling sudden infant death syndrome."

"Once the diagnosis of infant botulism is made, treatment is supportive. Neither antitoxin nor antibiotics have been of proven value."

annually.3 The clinical syndrome can vary from the insidious onset of constipation and mild hypotonia, with a mild course not requiring hospitalization to a fulminant presentation resembling sudden infant death syndrome. In a California series of 60 hospitalized cases of infant botulism, 4 68 percent were primarily breast-fed and 32 percent were primarily formula-fed during the month prior to onset of illness. Unexpectedly, all 10 cases of sudden death in this series were primarily fed formula with added iron; no SIDS-like case of infant botulism occurred in any breast-fed infant. From this data, Arnon concluded the breast-feeding affords relative protection against infant botulism and allows the illness to evolve so gradually that hospitalization is possible, thus explaining the disproportionate number of hospitalized infants who are breast-fed. In contrast, formula-feeding appears to predispose to a fulminant SIDS-like illness. In checking back over SIDS deaths in California, it was found that 10 of 280 SIDS infants had either C. botulinum organisms or toxin in the gut at the time of autopsy.

Infant botulism appears to have a very limited age range. Of all recognized cases, 98 percent have occurred in patients between I and 6 months of age and the oldest known case occurred in a 19-month-old child,5 Sugiyama and Mills6 demonstrated in infant mice the limited age of susceptibility to infant botulism that has been observed clinically. They found that the age of susceptibility could be increased if the mice were kept germ-free. These studies indicate that intestinal bacteria may inhibit the proliferation of Clostridium botulinum spores in the gut. Many reports have emphasized that honey may be the source through which infants acquire botulism spores but only a minority of infants with botulism have had exposure to honey. However, it is the one identified and avoidable source of C. botulinum spores to which susceptible infants may be exposed. Pediatric editorials7 and the CDC8 have recommended that honey not be fed to infants less than 12 months of age. Since it is spores rather than botulinal toxin which is associated with honey, it is not a danger to older children and adults.

Once the diagnosis of infant botulism is made, treatment is supportive. Neither antitoxin nor antibiotics have been of proven value. Botulinal toxin is bound irreversibly to nerve endings so that antitoxin, which only neutralizes circulating toxin, cannot alter the damage which already has occurred. Circulating toxin usually is not identified in infant botulism. In the one reported case where it was isolated, the infant was not treated and had recovered by the time identification occurred. Botulinal antitoxin is a horse serum product, and the risks of causing lifelong hypersensitivity outweigh any possible effect it may have in treatment. Similarly, with antibiotics, the risks of therapy outweigh their questionable value. Penicillin has not been found to alter the clinical

course of the disease and does not eradicate C. botulinum organisms or toxin from the gastrointestinal tract. Moreover, experimentally altering the intestinal flora seems to increase susceptibility to the effect of C. botulinum colonization. The use of aminoglycosides may have a synergistic effect with botulinal toxin at the neuromuscular junction, increasing the extent of the paralysis.¹⁰

Adequate support for these infants includes the availability of mechanical ventilation and personnel experienced in pediatric intensive care. Monitoring for apnea and bradycardia is necessary. Respiratory arrest may occur secondary to pooled secretions from improper positioning of the head and neck, so that meticulous, dedicated nursing care is essential. Feeding by nasogastric tube should be continued until infants can swallow adequately and great care must be taken to avoid aspiration. In our case, the infant was tubefed with his mother's milk to derive whatever benefit breast milk afforded. This also served to keep the mother actively involved in his care and able to resume breast-feedings when he recovered.

The diagnosis of progressive hypotonia in an infant can challenge the clinical acumen of the most astute pediatrician. Included in the diagnosis are several life-threatening conditions whose management differs considerably, thus making it imperative to establish a definitive diagnosis with all due speed. Diagnosis can be facilitated by the use of electromyography and nerve conduction series. Electrodiagnosis is a safe procedure whose value in the diagnosis of pediatric neuromuscular disease only recently has begun to be appreciated. We have reported a case of infant botulism in which the characteristic electrodiagnostic findings allowed us to make the diagnosis before the positive stool cultures could be obtained.

SUMMARY

The possibility that the ingestion of C. botulinum spores in food could colonize the gastrointestinal tract and produce toxin which then is absorbed was not considered seriously until Pickering reported the first two cases in 1976. Further reports confirmed his data and indicated that this form of botulinal infection is limited to infancy. Before infant botulism was described, only two forms of botulism were recognized: the ingestion of botulism toxin from improperly prepared food and the absorption of the toxin from infected wounds.

The clinical syndrome of infant botulism can vary from the insidious onset of constipation, ptosis, and mild hypotonia to a rapid fulminant course with sudden infant death. It is important to diagnose this disease rapidly, to distinguish it from other causes of progressive hypotonia in infancy (Werdnig-Hoffmann disease, acute poliomyelitis, Guillain-

Barré syndrome, and myasthenia gravis) each of which is managed differently. Werdnig-Hoffmann disease and acute poliomyelitis attack and the anterior horn cell; the Guillain-Barré syndrome is due to involvement of the axon myelin sheath; while botulism and myasthnia gravis affect the neuromuscular junction. Each causes distinctive electromyographic patterns which are highly suggestive of the diagnosis. We present a case of infant botulism and discuss the importance of electrodiagnosis in the early evaluation of progressive hypotonia in infancy. Results were available before the clostridial organism and toxin could be identified in the stool.

Acknowledgment

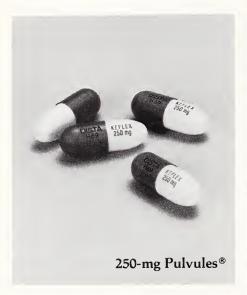
We would like to thank Dr. Frank Foca, Director of Physiotherapy at Overlook Hospital, for his assistance in performing electrodiagnostic testing.

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Pseudodigitation in Ectopic Ossification

LAWRENCE GOULD, M.D., JYOTI M. SHAH, M.D., MAHANDRA PATEL, M.D., GRAHAM T. CURTIS, M.D., Newark*

Three cases of unusual ectopic ossification are reported. In each instance, the new bone had the radiographic appearance of a digit, complete with cortex, medulla and joint space. Dystrophic calcification and ectopic ossification are discussed, and a possible mechanism for pseudodigitation is suggested.

to describe new bone formation in tissues where ossification does not normally occur.¹ Various names have been used in the past to describe this phenomenon. The one that is most familiar to readers is myositis ossificans.² Today, however, this term is considered somewhat of a misnomer, since there is no primary inflammation of muscle as the name implies. In myositis ossificans there is, instead, a compression of muscle fibers caused by the surrounding fibrosing and calcifying tissue.

Ectopic ossification can be differentiated from dystrophic calcification of soft tissue. In the latter, there is a deposition of amorphous calcium, but there is a lack of osteoblastic activity and no true bone formation occurs.

We recently studied three patients with ectopic ossification which were unusual in one respect. In each instance, the newly-formed bone assumed the anatomical appearance of a finger or digit and readily could be recognized as such on conventional radiographs. The "digit" in each example had a cortex, a medulla and a joint space between two distinct phalanges. In each case, there was a slight degree of flexion at the "distal interphalangeal joint space." To the best of our knowledge, this type of occurrence has not been described previously. We have coined the term "pseudodigitation" to describe our findings, and to suggest that this process may represent a further advancement and differentiation of ectopic ossification beyond mere bone formation.

CASE REPORTS

Case 1—A 45-year-old male appeared at the emergency room with symptoms of a mild respiratory illness. The physical examination essentially was normal and so was a laboratory profile which included a sedimentation rate and an alkaline phosphatase determination. A chest x-ray demonstrated a bony density in the right scapula which resembled a digit (Figure 1). The patient denied any knowledge of trauma to that region. He had no symptoms referable to the area where this ectopic ossification was located.

Case 2—A 56-year-old male came to the outpatient clinic with a complaint of left shoulder pain and a history of an old gunshot wound in the left upper extremity. An x-ray was taken and metallic fragments were demonstrated in the soft tissues. There was evidence of new bone formation with "pseudodigitation" in the region where the metallic fragments were located (Figure 2). The opposite side was taken for comparison purposes and was normal. A laboratory profile which included a sedimentation rate and an alkaline phosphatase level was normal.

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Figure 1—Pseudodigit situated in the right scapula. Note flexion at the joint space.

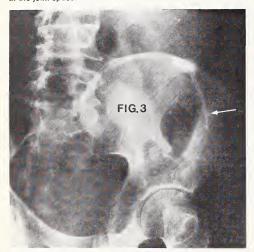


Figure 3—Pseudodigit attached to the crest of the left iliac bone. Note cortex, medulla and distal joint space.

Case 3—A 68-year-old male with mild chronic obstructive pulmonary disease (COPD) had an abdomen film taken for a complaint of mild epigastric distress. The film showed, as an incidental finding, an unusual calcification which arose from the left iliac bone and had the radiographic features of a "pseudodigit" (Figure 3 and Figure 4). There was no known history of trauma to the area of interest, and a laboratory profile which included sedimentation rate and alkaline phosphatase levels was normal.

DISCUSSION

Dystrophic calcification of soft tissues is the condition in which there is the abnormal deposition of amorphous calcium. Conditions in which this can occur include: calcified hematomas, tendon sheath calcification, fat necrosis, bursa calcification, burn injuries, abscess and other infections, neoplasms, tumoral calcinosis and collagen diseases.

Ectopic ossification is a more complicated and advanced process than dystrophic calcification, as there is definite osteoblastic activity and formation of an osseous matrix. Ectopic ossification (excluding myositis ossificans progressiva, an apparent hereditary disease) is associated in



Figure 2—Pseudodigit located in the soft tissues of the left shoulder. Metallic fragments also can be seen. Note evidence of cortex, medulla and joint space.

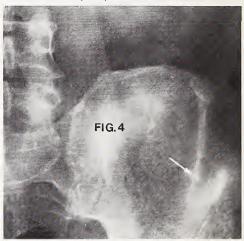


Figure 4—Oblique fluoroscopic spot film shows distal joint space to better advantage.

almost all cases with either trauma or with various neuromuscular disorders. Patients with spinal cord and/or brain injuries appear to be particularly prone to this affliction.

Although the exact mechanism of both dystrophic calcification and ectopic ossification is unknown, in dystrophic calcification, however, it appears that local edema with early necrosis leads to the liberation of a chemical factor which facilitates the deposition of calcium into the injured tissue. In some instances, following this dystrophic calcification new bone formation occurs. It is speculated that an activating substance is liberated which triggers certain dormant mesenchymal cells to differentiate into osteoblasts. These osteoblasts produce osseous matrices, and eventually lamellar bone is formed. Alkaline phosphatase levels have varied widely in different clinical studies. One explanation for this variation may be that the enzyme determinations were performed at different stages in the bone development process.

In the initial x-ray findings, there is soft tissue swelling, followed in two or three weeks by the appearance of flocculated dense deposits of calcium.

In the next stage, a lacy pattern of bone appears which

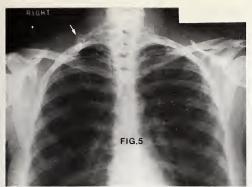


Figure 5—Pseudoarthrosis of right first rib in a normal, asymptomatic 45-year-old female.

requires 8 to 10 weeks to develop. Then, a mature trabeculated pattern of bone forms which can be recognized approximately 26 to 36 weeks after the initial injury.

Lastly, there is a gradual shrinkage of the bone mass to a definite size which remains constant thereafter. The entire sequence of events takes nearly a year.

"Pseudodigitation" appears to represent a more refined step beyond ectopic ossification. Why, where and in whom it occurs is unknown. Perhaps it is a host reaction in which a nonspecific osseous mass under either genetic or enzymatic control, differentiates into a specific bony structure but which lacks any known function.

"Pseudodigitation" does bear a radiographic resemblance to pseudoarthrosis of the first rib which is a well-known normal anatomic variant*.10 (Figure 5). Pseudoarthrosis as a sequelae of a limb fracture also is a well-recognized entity, but this healing deformity bears no relationship to "pseudodigitation" which occurs only in a newly-formed bone.

SUMMARY

Pseudodigitation, a new term, describes a unique type of ectopic ossification, in which newly-formed bone in soft tissue assumes the anatomical appearance of a digit or finger. Three separate cases are discussed, and in each instance radiographs of this phenomenon in different locations are presented. The theories behind dystrophic calcification and ectopic ossification are discussed and although the exact mechanism of pseudodigitation is unknown, it is speculated that it is a host reaction, perhaps under genetic or enzymatic control.

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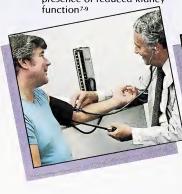
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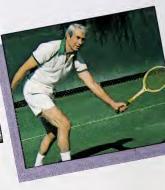
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PEDIATRIC BRIEFS

Selected Abstracts with Comments*

Gump DW et al.: Endometritis related to chlamydia trachomatis infection. Ann Intern Med 95:61, 1981.

Nonpuerperal endometritis due to C trachomatis was diagnosed by culture of endometrial tissue in a 23-year-old female during workup for prolonged infertility. Elevated levels of antibody against C trachomatis were demonstrated in serum (IgM) and cervical secretions. Histologic evidence of endometritis resolved after a 14-day course of tetracycline; repeat cultures were negative. An episode of gonococcal salpingitis five years earlier had been treated with penicillin and probenecid with residual adhesions but fallopian tube patency. Chlamydia endometritis may be an important cause of infertility.

Comment: This report adds another to the list of infections of the female genital tract caused by C trachomatis—urethritis, cervicitis, salpingitis, puerperal endometritis, and Bartholinitis—a spectrum almost identical to that of the gonococcus. This, coupled with the extremely high rate of dual infections (chlamydia recovered in up to 60 percent of females and 30 percent of males with gonorrhea), suggests that tetracycline is a prudent choice for first-line treatment of genital tract infections in the sexually-active population. The diagnostic method of choice for such infections is direct isolation of chlamydiae in tissue culture systems; the high background rate of seropositivity and the lack of predictable response in the individual patient precludes reliance on serologic studies. (S. George-Mautone, M.D.)

Kundsin RB et al.: Ureaplasma urealyticum (U) incriminated in perinatal morbidity and mortality. Science 213:474, 1981.

U ("T" strain mycoplasmas) was cultured from 25 percent of placentas and especially from placentas of infants needing intensive care. This association is suspicious and should be investigated further.

Comment: These are preliminary data but may be of great significance. U may be normal flora in male and female genital tracts but its association with perinatal morbidity is of concern.

Atkinson SA et al.: Human milk: Difference in nitrogen concentration in milk from mothers of term and premature infants. *J Pediatr* 93:67, 1978.

The authors collected and analyzed the protein content of the breast milk of mothers of seven preterm (26 to 33 weeks G.A.) and eight term (38 to 40 weeks G.A.) infants during the first month of lactation. The data indicated that protein concentrations were 20 percent greater in expressed milk of women who deliver prematurely (N concentration 312 mg/dl) than in milk of those who deliver at term (N concentration 267 mg/dl). The observed difference was truly a biologic phenomenon and not merely a consequence of difference in daily milk volume production or collection day. The authors concluded that milk from mothers giving birth

prematurely may be of a composition uniquely suited to optimizing growth of premature infants.

Comment: It has been suggested that pooled human milk does not provide adequate quantities of proteins and minerals to meet these predicted requirements for growing small premature infants (Fomon et al., 1977). This was based on the protein content of the pooled human breast milk of mothers who delivered at term. This timely article raised the possibility that milk from women who deliver prematurely uniquely may be suited to meet the nutritional needs of premature infants in terms of protein requirement. Fomon commented that the crucial question is whether the greater concentration of protein in the milk of women who deliver prematurely is associated with proportionate increases in the concentration of carbohydrate and fat, as the protein-calorie ratio determines nitgrogen retention. This important question has recently been answered by Zlotkin et al. (J Pediatr 99:115, 1981) who reported that when energy intake was more than 70 K cal/kg/day, the infusion of nitrogen providing 430 to 560 mg/kg/day (2.7 to 3.5 gm protein/kg/day) resulted in the duplication of intrauterine nitrogen accretion rates. By calculation, if a premature infant tolerated 150 ml/kg of his mother's milk, he would receive 470 mg of nitrogen per kg/day and more than 100 K cal of nonprotein calories per day. By definition this nitrogen and energy ratio would meet the normal intrauterine nitrogen accretion rate of 320 mg/kg/day from 28 to 33 weeks of gestation. From a teleologic point of view, the protein concentration of milk from a woman who delivers prematurely should be and seems appropriate to meet the specific needs of her infant. (S. Sun, M.D.)

Whitehead RG et al.: Infant growth and human milk requirements. Lancet 1:161, 1981.

The majority of women are capable of breast-feeding to three months (exclusively) and to six months or longer if complemented. A careful study of breast-fed infants revealed that WHO calorie requirements for the breast-fed infant may be 15 to 20 percent too high. The data indicate that rarely will an infant need complementary feedings before three months. The majority of children will need such feedings at some stage between four to six months. "It is futile to identify a single age when breast-feeding becomes inadequate as the sole source of food."

^{*}Abstracts from the Department of Pediatrics Newsletter. UMD-New Jersey Medical School, Newark—Vol. 3 No. 9 (Sept.) 1981. Selections are made by Richard H. Rapkin, M.D., Professor of Pediatrics and Medical Director of Children's Hospital. Newark, who is Editor: Franklin C. Behrle, M.D., Professor and Chairman of Pediatrics, and Shyan C. Sun, M.D., Associate Professor of Pediatrics and Director, Department of Neonatology, Children's Hospital, Newark, who are Coeditors. Comments are prepared by them and their associates.

Roddey OF et al.: Critical weight loss and malnutrition in breast-fed infants. Am J Dis Child 135:597, 1981; Lawrence RA et al.: Successful Breast-Feeding. Am J Dis Child 135:595, 1981

At ages 10 to 30 days, four infants of breast-feeding primiparas had severe dehydration and malnutrition due to inadequate milk intake. Attention to the hospital course, feeding patterns, and weight gain in the hospital is important in prevention of such occurrences.

Comment: The "props" to breast-feeding in our society are few. The pediatricians (especially young ones) have had little experience in their houseofficer years with breast-feeding; grandmothers who did not themselves nurse may provide misinformation; fathers are often unsupportive. Groups like "La Leche" can be helpful but they may not be known to the mother. Since the evidence that "breast is best" is unequivocal, it is essential for the pediatrician to educate himself, and then take responsibility for the close careful followup necessary to support and guide the primipara who is nursing. The extra-placid "good" baby is especially worrisome. Early and repetitive followup (weekly) may be necessary for nursing primiparas.

Meyer C et al.: Should linen in newborn intensive care units be autoclaved? *Pediatrics* 67:362, 1981.

Questionnaires sent to 269 directors of NICU (69 percent returned) showed that 74 percent of the respondents do not autoclave linen used in their NICU. The authors cultured linen not autoclaved in their NICU and found 68 percent of the cultures were positive, but only 2.5 percent had a colony count greater than 20 colonies per plate. The most common organisms obtained were Staph epidermidis, diphtheroids, and micrococcus species. Only two cultures grew Staph aureus, one colony and two colonies. The authors concluded that since so few NICUs in this country autoclave their linen, since there is a paucity of data proving linen contamination causes nosocomial infection, and because of their own findings, the AAP recommendations about linen sterilization merit further study and reevaluation.

Comment: The AAP standards and recommendation for hospital care of newborn infants recommend that linen in NICU, intermediate care, continuing care, and admission observation areas be autoclaved. This seemingly benign, well-intentioned guideline has a nasty way of coming back to haunt you, particularly in today's nightmarish litigation atmosphere. You'll never know when someday a lawyer may ask you how come you did not sterilize little Johnny's crib sheets. It is suggested that the hospital infection committee be made aware of this paper for future reference if the hospital feels it is too time-consuming or too expensive to sterilize nursery linen. (S. Sun, M.D.)

Bella R et al.: Good visual function after neonatal surgery for congenital monocular cataracts. *Am J Ophthalmol* 91:559, 1981.

Monocular congenital cataract has been considered a nearly hopeless clinical problem in which successful visual rehabilitation virtually is unknown. Bella and coworkers treated eight neonates who had total monocular congenital cataracts with early surgery (lensectomy plus vitrectomy) in the neonatal period, followed by binocular occlusion and contact lens fitting within four days of surgery. After a mean followup period of 2.8 years, visual acuities of these children were good. The authors believe that early surgery (in the neonatal period) is the key to the success.

Comment: It is not at all uncommon, though quite disheartening, for parents of infants in whom a unilateral cataract was diagnosed at birth to be advised by some ophthalmologists to wait for surgery until the child is three to six months old. Increasing evidence both in animals (newborn kittens and monkeys) and human infants have shown that unilateral stimulus deprivation causes a predictable visual deprivation syndrome (behavioral, histologic, and electrophysiologic disturbance). If this is correct, immediate surgical correction is most vital in the outcome of these infants. These experiences should encourage and renew our efforts as pediatricians and neonatologists to screen all newborn infants for cataracts and refer such cases as soon as possible to a qualified ophthalmologist. A careful first complete newborn physical examination (include eye) will save important eyesight for some children. (V. Kamtorn, M.D.)

Perrin EC et al.: There's a demon in your belly: Children's understanding of illness. *Pediatr* 67:841, 1981.

Most literature to date on the emotional impact of illness and hospitalization addresses the immediate and delayed effects of these stresses and their management. Such stresses are detrimental and upsetting. To date interventions have been through support, orientation, and expression. How valid are these interventions if the child has a cognitive restriction in perception and comprehension of the stress?

In this study of 128 children in suburban public schools in upstate New York, the cognitive perception of illness was studied by using Piaget's theoretical framework. The children were given questionnaires which addressed their cognitive development and perception of illness. Children of all ages responded to the questions with a wide scatter (some questions were responded to abstractly, others concretely), and the differences were not related to sex and socioeconomic status. There was a relation to I.Q. at the extremes of I.Q. (<100->135). The understanding of an illness (cause, prevention, treatment) paralleled the child's developmental concepts in other areas. The child between two and seven (preoperational) is aware of the immediate present experience, and poorly differentiates between self and external world (egocentric responses). Hence, he blames illness on concrete operations, things he does or fails to do. Recovery is by rigid adherence to rules and obedience. This child does not recognize illness unless told.

The fourth to fifth grader (concrete operational) differentiates between external and internal events but fails to perceive the role of the body in the illness. Illness is caused by germs and cured by medicine—namely, "externally controlled." Eighth graders (formal operation) could appreciate psychological factors (internal) contributing to illness.

In conclusion, to solicit children's help in their health care, one must address the child at his conceptual level of perception. Children can learn cognitively advanced concepts only to a limited extent, i.e., one step beyond their present level. The perceptions of chronically ill children need further study.

Comment: This paper draws our attention to qualitative dimensions of intervention. It calls on all of us who are practicing preventive mental health to assess our programs by determining their ability to meet the cognitive levels of perception of the child. In addition, school programs in hospitals will have to expect or accept a lower performance than normal by the stressed child. (U. Bhatt, M.D.)

A Word by Any Other Word: Euphemism

Euphemism (Gk. euphemismos, fr. euphemos, auspicious, sounding good, fr. eu and pheme, speech, fr. phanai, to speak—more at BAN): the substitution of an agreeable or inoffensive expression for one that may offend or suggest something unpleasant; also the expression so substituted. Webster's New Collegiate Dictionary.

This topic falls into the "petty" category, considering the "important" events taking place all around the world. However, every action that ever has affected the human race, whether for good or evil, began as an idea expressed in words. And it is the (ill) usage of certain words and phrases that I wish to discuss at this point in time. Have you ever heard a more ridiculous way of saying "now"?

I maintain an interest in precise language; I cannot help but become infuriated whenever I come across a phrase like, "They had sex," omnipresent in both lay and medical literature.

"They had sex." Of course they had sex. They were born with it or had it thrust upon them—even surgically at times. However, I am not advocating necessarily the use of certain four-letter, Anglo-Saxon words. Besides, they have become the most meaningless verb-noun-adjective-pronoun-adverbexpletives in the entire language.

Yet, I cannot help but hope for a little honesty in our use of words. What on earth is wrong with saying sexual intercourse? Intercourse, after all is defined as, "an act of running between; an exchange, especially of thoughts or feelings." Is not human coitus something more than a purely physical act? As a matter of fact, I would rather make love, than have sex. How about you?

Lest you start thinking (if you have not done so already) that my annoyance is limited solely to sex, let me flip the coin and dwell for a few moments on the obverse side: death and its euphemisms.

First, I am impelled to say that after more than 40 years of medical practice, I know nothing more about death than I did on the day I completed medical school. The only positive

statement I can make about death is that it prevents you from doing everything you did when you were alive.

In any event, death, per se, is not the real subject under discussion. Rather, my concern is for the living words too often employed to describe the "unhappy state." (That's not such a bad euphemism at all!)

Although I am not overly fond of such phrases as, "He kicked the bucket," or "Uncle Charlie croaked," I find them no more obnoxious than "My second cousin recently passed away," "She expired quickly," or "Aunt Shirley just gave up the ghost."

Why is the verb "to die" so laden with implicit terror that even the most religious among us fear its use? The unhappy fact is that people do not pass away or pass over from this vale of tears—they die. And may I never hear again, "His number came up."

I could cite many more instances of this Mother Goose bastardization of the English tongue, as I am sure anyone could. But why beat an expired horse?

I realize full well that a dozen people seeing the same accident will give a dozen different versions of what they saw; similarly, those same persons, reading the same story, may very well interpret the tale in 12 different ways. Words, I know, surely are not the most perfect method of communication. But I maintain that, despite body language and ESP, they are the best means we possess of expressing ourselves.

It was not my intention to give the impression that I seek to wash the color out of our language. I can think of nothing duller than a vocabulary utterly devoid of bright hues, subtle tints, and delicate shadings—a vocabulary that is merely a nondescript grey. So please let us be precise, without losing the color or romanticisms of our language. Reality sometimes insists—life occasionally demands—that things be called by their rightful names. People die and human beings engage in sexual intercourse, among other things.

Arthur Bernstein, M.D. Secretary of the Medical Society of New Jersey



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DOCTORS' NOTEBOOK

Frustees' Minutes November 15, 1981

regular meeting of the Board of rustees was held on Sunday, November 5, 1981, at the Executive Offices in awrenceville. Detailed minutes are on lle with the secretary of your county nedical society. A summary of signifiant actions follows:

1SNJ 1981 Membership... Noted the ollowing membership statistics and oberved an increase in active-paid categoy and slight decrease in active-exempt nembers:

	Oct. 31
Active Paid	7,598
Active Exempt	879
Affiliate	89
Associate	1
Emeritus	653
Total	9,220

AMA 1981 Membership ... Noted the following membership statistics and was advised that after the first of the year, practicing physicians over the age of 70 will be placed in dues-paying category:

	Oct. 31
Paid Members	4,453
Exempt Members	760
Total	5,213

MSNJ Financial Statements . . Received and approved financial statements for September, 1981. Noted significant increase in revenue over expenses as compared to same period in 1980.

MSNJ 1982 Paid Memberships ... Noted 202 paid memberships as of November 9, 1981; 194 from Essex County and 8 from Salem County.

Legal Matters ... Received a report on the status of litigation on the following cases in which MSNJ is involved:

(1) State Board of Medical Examiners vs. Butenas ... Noted a consent settlement offered by the State Board in its

re the results of 00 million worth of overnment-funded research n hypertension orth reading about?



complaint against Dr. Butenas for revocation of license, whereby there would be no findings, no conclusion, and a dismissal of the action against the physician; the physician would pay expenses incurred. The case represents a definite win for Legal Services Plan.

- (2) State Board of Medical Examiners vs. Maurer et al.... Noted a decision in favor of the physician is probable in this case involving the physical therapy act; litigation still is under investigation.
- (3) State Board of Medical Examiners vs. Grecco ... Noted that the decision concerning revocation of the physician's license still is in the hands of the State Board

- (4) State Board of Medical Examiners vs. Driggs ... Noted conclusion of litigation with position of MSNJ and Driggs sustained; there was no penalty, finding, adverse conclusion, or revocation of license.
- (5) Subordinated Loan Debentures ... Noted an anticipated settlement offer; it is possible that the item will be declared a deductible expense by Internal Revenue Service; matter adjourned for 90

College of Medicine and Dentistry of New Jersey ... Received a report from Dr. Stanley Bergen, President of CMDNJ:

(1) Foreign Medical Students ... Commented on clinical training and standards of foreign medical students in New Jersey proposed by State Board of Medical Examiners whereby the State Board plans to adopt a requirement that outof-country medical schools (except Canada) desiring to conduct clinical training programs in New Jersey secure approval of the State Board. (This reflects a change in wording from out-of-state to out-of-country with the exception of Canada.)

(2) Funding for a Department of Family Medicine . . . The 1981 House of Delegates adopted a resolution requesting New Jersey Legislature to recommend and fund a Department of Family Medi-

216th Annual Meeting May 14-17, 1982

Resorts International, Atlantic City

Daily Schedule

Friday, May 14, 1982

3:00 p.m.—Board of Trustees' Meeting

5:00 p.m.-Delegate Registration

Saturday, May 15, 1982

7:30 a.m.—Delegate Registration

9:00 a.m.-House of Delegates

9:00 a.m.-Message Center Opens; Scientific, Informational, and Insurance Exhibits Open; Auxiliary Arts and Hobbies Open; AMA-ERF Boutique Opens

10:00 a.m.—Auxiliary Pre-Convention Board Meeting

11:30 a.m.-Auxiliary Brunch

12:00 noon-Golden Merit Award Ceremony followed by

Reception for Award Recipients

1:00 p.m.—Reference Committee Meetings:
"A," "B," "C," "D," "E," "F," "G," "H,"

Constitution and Bylaws 6:00 p.m.-JEMPAC Wine and Cheese Reception

Sunday, May 16, 1982

7:00 a.m.-JEMPAC Breakfast

8:00 a.m.-Registration Opens

8:30 a.m.—Scientific Session on Surgery, Oncology, Clinical

9:00 a.m.—Message Center Opens, Scientific, Informational, and Insurance Exhibits Open; Auxiliary Arts and Hobbies Open; AMA-ERF Boutique Opens; Auxiliary General Session

9:00 a.m.—Scientific Sessions

Allergy; Chest Diseases; Cardiovascular Diseases; Emergency Medicine; Family Practice; Medicine; Orthopaedic Surgery; Pediatrics, Psychiatry

10:00 a.m.-Meeting-NJ Academy of Ophthalmology and Otolaryngology

11:30 a.m.-Meeting-NJ Committee on Trauma

11:30 a.m.—Luncheons: NJ Dermatological Society; NJ Society

of Anesthesiologists; NJ Society of Physical Medicine and Rehabilitation

12:00 noon-Luncheons: NJ Medical Women's Association; Oncology Society of NJ

1:00 p.m.-Luncheons: NJ Chapter, American College of Chest Physicians; President's Auxiliary

1:00 p.m.—Scientific Sessions

Spencer T. Snedecor Trauma Oration; New Jersey Women's Association; Anesthesiology; Dermatology; Gastroenterology and Proctology, Clinical Pathology; Neurosurgery and Neurology; Nuclear Medicine, Radiology; Obstetrics and Gynecology, Urology; Ophthalmology; Otolaryngology; Physical Medicine and Rehabilitation; Plastic and Reconstructive Surgery; Rheumatism

3:00 p.m.-Meeting, Widows and Orphans Society

4:00 p.m.—Annual Meeting—Board of Governors of MIIE

6:30 p.m.—Inaugural Reception 8:00 p.m.—Inaugural Dinner-Dance

Monday, May 17, 1982

6:30 a.m.—Essex County Breakfast Caucus

6:30 a.m.-Union County Breakfast Caucus

8:00 a.m.—Registration Opens

8:00 a.m.—Auxiliary County Presidents' Breakfast 9:00 a.m.—Message Center Opens; Scientific, Informational, and Insurance Exhibits Open

9:00 a.m.-House of Delegates (to consider Reference Committee reports)

10:00 a.m.-Auxiliary Post-Convention Board Meeting

12:00 noon-Scientific, Informational, and Insurance Exhibits Close; Auxiliary Arts and Hobbies Close; AMA-**ERF** Boutique Closes

12:00 p.m.-House of Delegates adjourns for lunch

1:30 p.m.-House of Delegates reconvenes

4:00 p.m.—House of Delegates adjourns 5:00 p.m.—Board of Trustees' meeting

cine at the College of Medicine and Dentistry—New Jersey Medical School.

Note: Dr. Bergen advised that this has been an ongoing issue with no immediate solution. The dean and faculty at CMDNJ reaffirmed the position that the main thrust would be education of primary care physicians with a component, not separate, department for family medicine. A faculty member from the Academy of Family Physicians has been appointed to a part-time, paid position. Dr. Bergen doubted that there would be a voluntary agreement with CMDNJ.

... Accepted two items of correspondence that directed support of a Department of Family Medicine be maintained; and advised Committee on Medical Education to participate in all related activities.

New Jersey Hospital Association Health Planning . . .

(1) State Level ... Directed immediate

action be taken to contact committees (chaired by Mr. Owen and Mr. Rabinowitz) involved in forming health planning group, to demand MSNJ have representation on and input in development and activities.

(2) County Level... The following resolution on health care planning was submitted by Essex County Medical Society:

Whereas, there is evidence that Health Systems Agencies (HSAs) will no longer be funded by the Federal Government; and

Whereas, they have been handling the area planning problems and the delivery of health care including Certificate of Need; and

Whereas, there will continue to be problems in the delivery of health care which require adequate planning by knowledgeable people; now therefore be it

Resolved, that the Medical Society of New Jersey recommend that all 21 component medical societies establish area-wide planning committees which would review and advise on health care planning in their respective

areas; and be it further

Resolved, that the Medical Society of New Jersey notify all concerned parties that such a network of medical consultants is available to them on all aspects of area-wide planning for health care.

... Approved first resolve. Action on second resolve deferred until network of medical consultants on health care planning is developed.

AMA Activities and Insurance Affairs... Received report from James S. Todd, M.D., Chairman of the Board of Directors of New Jersey State Medical Underwriters and member of the AMA Board of Trustees, highlighting the following:

(1) Rate Filing ... Board of Governors of MIIENJ plans to refile with 16.1 percent rate increase.

(2) AMA Budget ... Approved 1982 AMA fiscal year budget based on expected revenues of \$83,268,000 and operating expenses of \$79,229,000.

he Veterans Administration compared Step-2 egimens in 450 mild eypertensive patients, which regimen was broven most effective?



- (3) Opinion Polls ... Announced information from public and physician polls indicating cost is main problem facing health care today. Seven out of ten Americans feel need for National Health Insurance; less than 50 percent support NHI if it means an increase in taxes.
- (4) AMA Interim Meeting Issues ...
 (a) Health Manpower—Developed comprehensive Health Manpower report recommending that market forces and individual decision making should be relied upon to produce the proper supply of physicians and allied health personnel.
- (b) Health Insurance Legislation—Favored consumer-choice legislative concept designed to increase the consumer's financial awareness and involvement in selecting benefit plans.
- (c) Health Block Grants—Sponsored conference to educate state association members about changes in federal funding for health care programs. Dr. Todd urged physicians to avoid confusion by becoming involved with new health block grant programs.
- (5) Medical Students and Residents ... Noted that medical students and residents are largest-growing segment within AMA and stressed the importance of integrating them into MSNJ.
- (6) Hospital Medical Staff ... Noted development of alternative to American Hospital Association plan that is organizing section for medical staffers.
- (7) Councils and Committees ... Received Dr. Todd's request that names of candidates for patronage positions on specific councils and committees be supplied to him.
- (8) Joint Commission on Accreditation of Hospitals . . . Congratulated Dr. Todd on his three-year appointment as Commissioner to the Joint Commission on Accreditation of Hospitals.

Council on Medical Services . . .

(1) Approved the following recommendation:

That the publication of a list of "same-day surgery" procedures and restrictive rules by paying parties be denounced, and that "same-day surgery" be performed only at the discretion of the surgeon.

(2) Endorsed the following recommendation:

That the first resolved in Resolution #3 (Blue Cross Coverage for Rehabilitation Treatment, 1981 House of Delegates) be amended to read:

Resolved, that the Medical Society of New Jersey advocate and support necessary changes in Blue Cross, Blue Shield, and Major Medical contracts to make possible adequate coverage for the necessary completion of rehabilitation treatment of patients requiring such services; and be it further, (italics indicate amendment)

The second Resolved, which reads as follows, would remain the same:

Resolved, that the present, unrealistic \$50-ayear limit for rehabilitation treatment be changed so that rehabilitation treatment may be received on an outpatient basis whenever feasible and indicated, thereby avoiding expensive and extended hospitalizations.

(3) Noted the approval of the following recommendation:

That the Medical Society of New Jersey endorse the use of the CPT-4 coding system.

(4) Approved the following recommendation:

That the AMA Guides to the Evaluation of Permanent Impairment published in 1971 be reaffirmed as a guide for physicians involved in determining degree of impairment in workmen's compensation cases, where possible.

Council on Public Relations ... Approved the following recommendation:

That the following be approved as continuing projects for 1981-1982:

- (1) Publication and distribution of the Membership Newsletter.
- (2) Preparation and publication of special news releases and publicity as required from time to time, in furtherance of the Society's human statement and activities.
- business, interest, and activities.
 (3) Responsibility for bestowal of the Golden Merit Award.
- (4) Responsibility for issuance of press releases at the Annual Meeting.
- (5) Encouragement of continuance—or establishment—of orientation programs for new members under the sponsorship of component societies.
- (6) Encouragement of increased voluntary blood donations.
- (7) Encouragement of radio broadcasts under the auspices of component medical societies.
- (8) Encouragement of medical TV programs.
- (9) Diabetes Detection Week.(10) Placement Service—The Journal.
- (11) Coordinate efforts with the Ad Hoc Committee on Drug Abuse for drug abuse education and prevention.

Committee on Medical Education ...
Approved the following recommenda-

- (1) That the Medical Society of New Jersey support the Board of Higher Education's recommended increase for the State Graduate Medical Education Program which provides seed money for primary care residencies in New Jersey.
- (2) That the Board of Trustees request the Academy of Medicine of New Jersey to devote 10 percent of its efforts to prescription drug abuse, misuse, and diversion, and that CME accredited hospitals be requested to do the same.

Committee on Medicaid . . .

(1) Approved the following recommendation and directed that it be referred to the Committee on Revision of Constitution and Bylaws for preparation of the necessary amendment to the bylaws:

That the Committee on Medicaid be made a Standing Committee and that the Committee on Medicaid be charged with dealing with all Medicaid situations in regard to the private practice of medicine and act as liaison with the Division of Medical Assistance and Health Services, New Jersey Department of Human Services.

(2) Agreed that procedures listed in New Jersey Health Services Program Newsletter, Volume BC-196 (prenatal ultrasonography, prenatal laboratory tests, obsolete or unreliable diagnostic tests, and routine x-rays) are on the list to avoid misuse and should remain as procedures requiring documentation of medical necessity.

Committee on Publication . . . Approved the following recommendation:

That the basic makeup policy of *The Journal*, MSNJ, be reaffirmed and amended as indicated:

- Advertising may be placed at the beginning or end of editorial matter, but may not interrupt editorials, commentaries, scientific articles, or special articles.
- 2. Advertising may not be placed on the same page with editorial matter as specified in (1) above.
- 3. Advertising may be placed on the same page and interrupt editorial copy in the following areas: *Notebook Section*, Physicians Seeking Location in New Jersey, CME Calendar, *Letters* (italics indicate amendment).

The proposed amendment is to existing policy approved by the Board of Trustees on March 20, 1977.

Advisory Committee to Review Health Care In New Jersey Jails ... Approved the following recommendation, with commendation to the advisory committee for a job well done:

That the Department of the Public Advocate be advised that the Medical Society of New Jersey urges the adoption of the AMA Standards for Health Services in Prisons for state prisons and county jails in New Jersey. (Note: These standards take into account the particular circumstances of the institutions and the local government.)

The Department of Corrections has developed its own standards in this regard and has submitted them to the AMA for a determination of compatability. It should not, therefore, present an unmanageable problem for the jail system in New Jersey (state and county) to comply with the AMA program. This Committee suggests that a seminar for physicians in the field of jail health would be timely. Topics such as liability, insurance coverages, and contract benefits should be discussed. This could be accomplished through the Academy of Medicine of New Jersey.

JEMPAC... Received an overview of recent activities presented by Dr. Watson, Chairman, and authorized the Executive Committee to consider and recommend a nominee for appointment as State Commissioner of Health for the new administration.

Old Business . . .

(1) Term of Service on the State Board of Examiners . . . Approved position paper for presentation to Governor and New Jersey Legislature (See *J Med Soc NJ* 78:13, Dec, 1981):

(a) Tenure

Currently there is no limitation on the number of years an individual may serve on the State Board of Medical Examiners. A number of appointees have been in office since 1967, if not earlier. Service on the Board should not be extended indefinitely. Physician members should be limited to no more than six years of service.

(b) Age

At least four of the nine M.D.s on the Board are over the age of 70. Service on the Board requires a multiplicity of skills and certainly

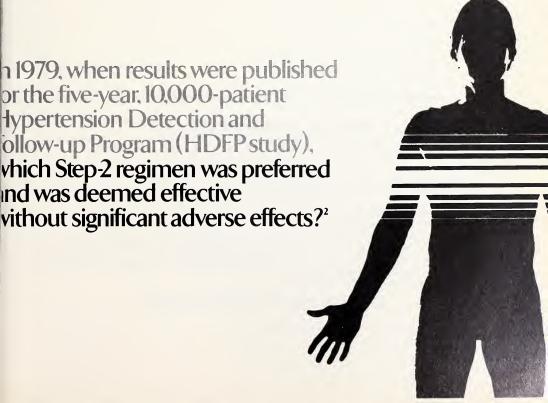
demands a high level of clinial competence and knowledge of the current art and science of medicine, along with the necessary amount of judicial temperament. The concept of mandatory retirement at age 70, which is applicable to civil and criminal judges, should be applied to members of the State Board of Medical Examiners.

(c) Clinical Experience

The concept supporting the professional board structure in New Jersey is that the licensed professional serving on the Board should be conversant with the standards of the profession he/she is licensing and regulating as well as the practical application of professional training in the clinical setting. A substantial number of the M.D.s on the State Board of Medical Examiners are not active practitioners and do not have ongoing contact in clinical settings. They are, therefore, removed from a realistic evaluation of the effect of their decisions on the profession and the public it serves. All M.D. members of the Board should be in full-time clinical or consultative practice.

(d) Medical Society of New Jersey Evaluation of Candidates for the State Board of Medical Examiners

The Medical Society of New Jersey is the largest medical society in the State with over 85 percent of New Jersey's physicians as members. Individuals being nominated for



the Board should be screened and evaluated by the Society with its report being advisory to the Governor. The stature and integrity of the Society is well recognized by law in New Jersey and prior consultation on appointments would assure that the individuals considered are respected and of accomplishment within their profession. (Note: The Supreme Court of New Jersey appoints physicians named by the Medical Society of New Jersey to service on judicial panels.)

Implementation of the above concepts by the Governor would create an effective, realistic, and accountable licensing and regulatory structure in New Jersey.

(2) Excessive Fee Committees . . . Noted that Bergen, Middlesex, Morris,

and Union County Medical Socities allow physicians' response to consumer complaints and if the county judicial committee agrees with the physician, a representative of the county society will appear with the physician in support before the State Board; the importance of an attorney at the hearing was noted.

- ... Agreed that the county medical societies be encouraged to set up excessive fee review mechanisms similar to those already in progress in other county societies.
- (3) Compendium of Rules and Regu-

lations... Directed that the State Board of Medical Examiners be advised that a personal mailing should be made semi-annually to all licensed physicians, informing them of new laws, new regulations, and recent interpretations of existing laws.

New Business . . .

- (1) Risk Prevention Seminars ... Approved a recommendation that the Board of New Jersey Underwriters design a course on risk prevention; such a plan is in operation in Georgia where physicians attend lectures, workshops, and a mock trial, and receive insurance premium discounts. Directed that such a plan be submitted to the Board of Governors of the Exchange (MIIENJ).
- (2) Foundation of the College of Medicine and Dentistry of New Jersey ... Postponed consideration of request for increase of support for Foundation; directed review of Foundation's 1980-81 annual report before further consideration.
- (3) Divergent Medicare Fee Areas ... Received a letter from Dr. Fred Miller requesting Medicare fee-for-service to internists be updated and asking why

northern portion of the state receives higher fees for same service, and suggested that Dr. Miller request a delegate of his county society to introduce a resolution to change present policy.

(4) Hospital Staff Privileges ... Reviewed factors of Falcone case which claims the Bergen County Medical Society acted in an arbitrary, unreasonable. and illegal fashion in denying Dr. Falcone membership and the hospital could not, therefore, rely upon his nonmembership to deny attending privileges. Bergen County Medical Society believes the New Jersey Supreme Court should be importuned to update and clarify its policies regarding hospital staff privileges. Legal Counsel advised that New Jersey Supreme Court does not grant advisory opinions; the alternative would be to develop a case on the point. Directed that Legal Counsel's comments be called to the attention of Bergen County Medical Society.

Correspondence ... Noted communication from Charles Harris, M.D., in response to Laboratory Disclosure Act Information. Acknowledged and welcomed William T. McGuire, newly-appointed Executive Director of Passaic County Medical Society.

Help for Impaired Physicians We need YOU to tell us about an impaired colleague!

Experience clearly shows that victims of chemical abuse and most psychiatric impairments are not capable of perceiving their behavior realistically. Therefore, they are incapable of reaching out by themselves for the help needed to avoid irreversible damage to themselves and others, and to take the first step toward rehabilitation.

The Impaired Physician Committee of MSNJ is a group of physicians, many of whom have recovered from substance abuse and addiction, who approach impaired physicians with advocacy and experience.

We know that you, personally, do not know what to do with these colleagues. We do! But we have to know who they are. The earlier the problem is recognized and attacked, the easier it is to solve.

It is normal human behavior to ignore problems that appear insoluble. Unfortunately, the psychopathy of substance abuse and addiction always gets worse while it is ignored.

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Help us to help our impaired colleagues.

UMD Notes

Stanley S. Bergen, Jr., M.D. President

We enter 1982 with a new name— University of Medicine and Dentistry of New Jersey (UMD). It is an appropriate and gratifying—way to begin a year that promises to bring with it new and expanded facilities, growth in patient service programs, and gains in teaching and research on our three campuses in Newark, Piscataway, and Camden.

The university status and increased operating autonomy granted late last year by the New Jersey Legislature and former Governor Brendan T. Byrne will enhance our longstanding mission: health service, health sciences education, and research.

In our first 11 years of operation, the College of Medicine and Dentistry of New Jersey was transformed into a thriving training ground for the health professions, a site of growing tertiary care programs, an atmosphere attracting top educators and scientists, and a source of pride for New Jersey (a state

once referred to as a medical wasteland). This has not been our accomplishment alone but rather due to the efforts of many, including the Medical Society and its staunch support and hard work. We thank you. As we now enter our 12th year with a name that best reflects an institution of six schools, 2,000 students and 1,000 postgraduate physicians at affiliated hospitals throughout the state, we hope we can continue to serve well and attain an ever-increasing excellence of performance. The prospects for progress are encouraging.

The UMD-Rutgers Medical School, Piscataway, is gaining a new clinical science campus at Middlesex General Hospital in neighboring New Brunswick. A medical education building—housing clinical faculty offices, research laboratories, teaching and conference areas, and a medical library—will be dedicated this spring at the hospital, the primary teaching facility for the school. The building will be part of a \$60-million complex also featuring new hospital facilities for ambulatory care and acute services.

Major construction projects will continue this year on our North and South Jersey campuses. In Newark, we expect to see completion of our \$3 million Cancer and Research Center. It will be a major state resource, emphasizing a comprehensive multidisciplinary approach to cancer care, research, and education. We estimate that some 500 patients will be seen at the center in its first year.

In Camden, construction will continue on the \$9 million Education and Research Center for the UMD-New Jersey School of Osteopathic Medicine and UMD-Rutgers Medical School at Camden. The center will house faculty and administrative offices and research laboratories and classrooms to meet a growing student enrollment and faculty roster.

Two major tertiary care programs will take shape and grow in 1982 at the UMD-College Hospital, Newark. They are the Statewide Perinatal Center program, offering the most specialized care in the handling of pregnancies and births with complications, and the Regional

n 1980, when the pint National Committee on Detection, Evaluation, and reatment of High Blood Pressure published their recommendations, which Step-2 regimen best met their criteria for effectiveness, safety, simplicity of titration, convenience, and economy?

Trauma Center program which cares for the most severe cases of injury with a team of specially trained emergency medical personnel. The trauma program will receive an additional boost this spring with the addition of a Mobile Intensive Care Unit at the hospital.

Two new features at the UMD-New Jersey Medical School, Newark, are a Pain Center, a multidisciplinary approach to diagnosing and relieving pain, and a Toxicology Laboratory (with services open to physicians and hospitals in the state) that will be capable of rapid and precise poison detection in human blood and tissue and drug monitoring for therapeutic purposes.

At the UMD-School of Allied Health Professions, Newark, a pair of new cooperative programs will be initiated in 1982: a two-year program in nursing with Essex County College, and a baccalaureate degree program in toxicology being arranged with Montclair State College. Expanded programs for treating geriatric patients and the emotionally disturbed are being developed at the UMD-New Jersey Dental School, Newark.

Among the programs expected to come to fruition this year on the Piscataway campus is the Occupational and Environmental Medicine Clinic established by UMD-Rutgers Medical School and located at Middlesex General Hospital. Here, physicians will examine and treat patients who suspect they have been exposed to dangerous chemicals, whether on the job or related to the environment.

Although research dollars from Washington might not be flowing as gener-

ously as in the past, we look forward to a year of significant scientific accomplishment among our faculty. Faculty at UMD-New Jersey Medical School are working with a laser for acupuncture and surgery and with materials and techniques for regenerating human ligaments and tendons. At the UMD-Rutgers Medical School, the recent completion of a \$100,000 Biohazards Laboratory will provide a strong boost for basic science research, permitting additional studies of viruses, human tumors, and environmental carcinogens.

A potentially exciting and fruitful year is ahead. I have every confidence that our accomplishments will demonstrate the University of Medicine and Dentistry of New Jersey to be deserving of its new name.

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MSNJ Auxiliary Phyllis Romano, President

At our Executive Board meeting on November 9, 1981, positive action was taken with regard to a communication received from Dr. Frank Y. Watson, Second Vice-President of the Medical Society, requesting the assistance of Auxiliary members.

In order to determine the state legislative and federal congressional districts of our physicians, home addresses are needed. This information can be used to establish a communication system by which the Medical Society and Auxiliary can inform members of key issues of concern to the medical profession.

Knowing which physicians are in each legislative and congressional district also will enable us to establish the most effective organization possible for political action to deal with the continuing governmental impact on medical care and the practice of medicine. Therefore, Auxiliary members and members of the staffs of the medical societies will be contacting physicians—all of you—in

the very near future.

We assure you that your privacy will be protected. The information secured will not be given to any persons but the Auxiliary Committee. All home address information will be destroyed once the physicians' voting districts have been determined.

Therefore, to complete this task, every county auxiliary needs and requests your full cooperation.

Women Physicians In New Jersey

As of November, 1981, the national average for women physicians (federal and nonfederal) was 12 percent. New Jersey is one of the state leaders, with an above-average 15.4 percent—ranking sixth in the United States.

The current national average for women residents is 12 percent, and for

women medical students the national average is 27.5 percent. Again, New Jersey has an above-average standing, ranking 19th in the United States with women residents-in-training at 22.4 percent.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY—Hossain Esmaili, M.D., P.O. Box 1017, Franklin, VA 23851. Tabrize (Iran) 1971. Any type practice. Available.

David C. Lung, M.D., 273 Sunrise Blvd.,

and there's more proof on the way!

82 will see the completion of the Multiple Risk ctor Intervention Trial (MRFIT)—a six-year, ,000-patient study assessing the factors that crease risk of cardiovascular disease. For the anagement of hypertension, the preferred ep-2 regimen in this study is reserpine-thiazide.

1978, in a preliminary report presented to the bidemiology Section of the American Heart sociation (Dallas, Nov 1978), after 12 months the trial, fewer patients (5.3%) treated with serpine suffered depression than even the attreated control group (7.7%)!

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11/81

Williamsville, NY 14221. China Medical (Taiwan) 1974. Board eligible. Group or partnership. Available July 1982.

Kung-Ho Liu, M.D., 1935-27C Eastchester Rd., Bronx, NY 10461. National Univ. (Taiwan) 1964. Board eligible. Group, partnership, solo. Available July 1982.

CARDIOLOGY—Stephen Rothbart, M.D., 1343 Amherst Avenue, Union, NJ 07083. CMDNJ 1977. Trained in all invasive and noninvasive techniques. Group, partnership, solo, Available July 1982.

Arkady B. Rapoport, M.D., 4121 Meadowbrook Lane, Minneapolis, MN 55426. Minnesota 1981. Also, general internal medicine. Board eligible (both 1M and cardiology). Group, partnership, solo. Available July 1982.

Richard C. Redline, M.D., 26 Mt. Vernon Street, Apt. 4-F, Boston, MA 02108. Virginia 1977. Also, general internal medicine. Board certified (IM). All areas of cardiology including echocardiography, nuclear, catheterization. Group, partnership, solo. Available July 1982.

Naeem Anwar Khan, M.D., 64 Mayfair Drive, West Orange, NJ 07052. Khyber (Pakistan) 1973. Also, general internal medicine. Board certified (IM). Solo, group, partnership, hospital-based. Available July 1982.

Gerald I. Myers, M.D., 6324 Alderson Street, Pittsburgh, PA 15217. Temple 1976. Also, general internal medicine. Board certified (IM). Group or partnership. Available.

N. Iyengar, M.D., 142 Hawkins Ave., Parsippany, NJ 07054. Mysore (India) 1971. Group, partnership, single, multiple specialty. Available.

V. Srinivasan, M.D., 353 E. 17th St., Apt. 22A, New York, NY 10003. Madras (India) 1975. Board certified (IM). Solo, group, partnership, other. Available July 1982.

FAMILY MEDICINE—Martin M. Keibel, M.D., 329 Water Street, Hallowell, ME 04347. SUNY-Downstate 1977. Board certified. Group. Available August 1982.

GASTROENTEROLOGY—Philip Nagel, M.D., 8155 North Karlov, Skokie, IL 60076. University of Pennsylvania 1974. Also, general internal medicine. Board certified (IM). Consultative gastroenterology—single or multi-specialty group, clinic or hospital-based practice. Available July 1982.

Bruce J. Langner, M.D., 12 Cedar Pond Drive, Apt. 9, Warwick, RI 02886. Guadalajara (Mexico) 1976. Board eligible. Group or partnership (IM and gastroenterology.) Available July 1982.

Jeffrey J. Kutscher, M.D., 435 East 70th Street, New York, NY 10021. Case Western 1977. Also, general internal medicine. Board certified (IM). Group, partnership, solo, institutional. Available June 1982. Kannappan Mohan, M.D., 380 N. Broadway, Yonkers, NY 10701. Madurai Medical (India) 1973. Board certified (IM). Solo or partnership. Available July 1982.

GENERAL MEDICINE—Biagio Scialpi, M.D., 330 Park Hill Avenue, Yonkers, NY 10705. Bari (Italy) 1949. Group, solo, or full-time position in industry or insurance. Available.

HEMATOLOGY/ONCOLOGY—Michael Willen, M.D., 164 Homestead Avenue, Albany, NY 12203. New York Medical 1976. Also, general internal medicine. Board certified (IM). Board eligible. Group or partnership. Available July 1982.

Douglas Faig, M.D., 3450 Wayne Avenue, Apt. 23-D, Bronx, NY 10467. NYU 1976. Also, general internal medicine and blood banking. Board certified (1M). Board eligible. Group, partnership. Available July 1982.

INDUSTRIAL MEDICINE—Albert Abraham, M.D., 11 Cromwell Drive, Convent Station, NJ 07961. New York University. Board certified (IM). Medical directorship (preferably in or near Morris County). Available.

INFECTIOUS DISEASES—Alan Lin-Greenberg, M.D., 353 East 17th St., 10B, New York, NY 10003. Albany Medical 1975. Board certified (IM). Group or academic. Available July 1982.

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Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.

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(especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss may cause digitalis intoxication. Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease or bronchial asthma and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.

INTERNAL MEDICINE—David Guttman, M.D., 353 East 17th Street, New York, NY 10003. New York University 1977. Subspecialty, gastroenterology. Board certified. Group, partnership, solo. Available July 1982.

Cuddalore P. Vasudevan, M.D., 14500 S. McNab Avenue, Apt. 2810, Bellflower, CA 90706. Madras 1974. Subspecialty, pulmonary medicine. Board certified. Solo. Available July 1982.

James A. Scerbo, M.D., 3582 Green Brier Boulevard, Apt. 404-C, Ann Arbor, MI 48105. Columbia 1979. Partnership or group. Available July 1982.

Arvind M. Mehta, M.D., 672 General Scott Road, King of Prussia, PA 19406. Baroda (India) 1973. Subspecialty, cardiology (preferably noninvasive). Board eligible (both). Single or multi-specialty group. Available.

Randolph J. Swiller, M.D., 182-11 Henley Road, Jamaica Estates, NY 11432. Chicago 1972. Board eligible. Group or partnership. Available.

Harish N. Nagarsheth, M.D., 12 Marlboro Court, Maywood, NJ 07607. Seth (India) 1975. Subspecialty, cardiology. Board eligible. Hospital-based solo, partnership, group. Available July 1982.

Raymond Cogen, M.D., 1742-A Kendrick

Street, Philadelphia, PA 19152. Hahnemann 1978. Board eligible. Private practice, partnership, or salaried position with one or more physicians. Available.

Andrew Rashkow, M.D., 208 Greta Street, West Haven, CT. Graz (Austria) 1978. Board eligible. Group, solo, partnership. Available July 1982.

Richard A. Balter, M.D., Division of General Internal Medicine, Georgetown University Hospital, 3800 Reservoir Road, NW, Washington, DC 20007. NYU 1978. Board eligible. Partnership, group. Available July 1982.

Jerome R. Weiner, M.D., 6045 Spender Avenue, Bronx, NY 10471. Mount Sinai 1977. Subspecialty, pulmonary medicine. Board certified. Solo or group private practice in pulmonary diseases. Available July 1982.

Kabul S. Garg, M.D., 129 York Street, Apt. 6-M, New Haven, CT 06511. Patiala (India) 1972. Subspecialty, cardiology. Solo or group practice. Available July 1982.

Kannappan Mohan , M.D., 380 N. Broadway, Yonkers, NY 10701. Madurai Medical (India) 1973. Subspecialty, gastroenterology. Board certified (IM). Solo or partnership. Available July 1982.

Mukesh N. Mathur, M.D., 853 Avenue Z, Brooklyn, NY 11235. Rajasthan (India)

1976. Board eligible. Group, partnership, solo. Available.

Alan Lin-Greenberg, M.D., 353 East 17th St., 10B, New York, NY 10003. Albany Medical 1975. Subspecialty, infectious diseases. Board certified (IM). Group, academic. Available July 1982.

Jitemdra C. Shah, M.D., 288 Bay 38th St., 6D, Brooklyn, NY 11214. Seth G.S. Medical (India) 1974. Subspecialty, pulmonary medicine. Board certified (IM). Hospital based or group. Available July 1982.

N. Iyengar, M.D., 142 Hawkins Ave., Parsippany, NJ 07054. Mysore (India) 1971. Subspecialty, cardiology. Group, partnership, single, multispecialty group. Available.

V. Srinivasan, M.D., 353 E. 17th St., Apt. 22A, New York, NY 10003. Madras (India) 1975. Subspecialty, cardiology. Board certified (IM). Solo, group, partnership, other. Available July 1982.

NEUROLOGY—James C. McVeety, M.D., 7740 Camino Real, Miami, FL 33143. Bologna (Italy) 1975. Also, general internal medicine. Board certified (IM). Any type practice. Available June 1982.

Stuart R. Stark, M.D., 12309 Featherwood Dr., Apt. 42, Silver Spring, MD 20904. Maryland 1978. Group or partnership.

ADVERSE REACTIONS

Hydroflumethiazide

Skin-rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation.

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References:

 Propranolol in the treatment of essential hypertension. Veterans Administration Cooperative Study Group on Antihypertensive Agents. JAMA 237:2303-2310, 1977.

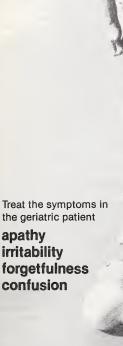
 Five-year findings of the hypertension detection and follow-up program: I. Réduction in mortality of persons with high blood pressure, including mild hypertension. Hypertension Detection and Follow-up Program Cooperative Group. JAMA 242:2562-2571, 1979.

 The 1980 Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. Arch Intern Med 140:1280-1285, 1980.

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Available July 1982.

NUCLEAR MEDICINE-Maria I. Straub, M.D., 254 Frances Street, Teaneck, NJ 07666. University of Budapest (Hungary) 1967. Special interest, diagnostic radiology. Board eligible. Available.

OBSTETRICS/GYNECOLOGY-Jay T. Gendal, M.D., 245-20 Grand Central Parkway, Apt. 3-A, Bellerose, NY 11426. Georgetown 1978. Board eligible. Group, partnership, multi-specialty group. Available July 1982.

Paul Lam, M.D., 441 Valley Road, Melrose Park, PA 19126. Case Western 1978. Board eligible. Partnership, group, solo. Available July 1982.

Rodger A. Fraser, M.D., 109 Scott Street, Joliet, IL 60431. Howard 1974. Board eligible. Solo, group. Available June 1982. Dorit Yabrov, M.D., 70 Roper Rd., Princeton, NJ 08540. Leningrad (Russia) 1961. Group, partnership, outpatient clinic, abortion clinic. Available.

OPHTHALMOLOGY-Florence S. Lee, M.D., 676 Kent Avenue, Teaneck, NJ 07666. SUNY-Downstate 1976. Board certified. Partnership or group. Available.

OTOLARYNGOLOGY-Arnold I. Charow, M.D., 6 Country Club Drive, Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.) Available.

PATHOLOGY-Vasundhara G. Untawale, M.D., 281 Farmingdale Rd., Wayne, NJ 07470. India, 1972. Board eligible. Hospital. Available July 1982.

Parbati Basu, M.D., 3400 Henry Ave., Philadelphia, PA 19129. N.R.S. (India) 1975. Board eligible. Any type practice. Available July 1982.

PEDIATRICS-Prasanna G. Pradhan, M.D., 1319-D River Avenue, Lakewood, NJ 08701. Baroda (India) 1975. Board eligible. Group, partnership, solo. Avail-

Robert G. Dorr, M.D., 753 Montclair Street, Pittsburgh, PA 15217. Maryland 1979. Board eligible. Group. Available July

Daryl H. O'Brien, M.D., 2808 Omah Street, Durham, NC 27705. Dartmouth 1979. Board eligible. Group or partnership. Available July 1982.

Yashaswini H. Shah, M.D., 165 Lynch Rd., Middletown, NJ 07748. M.S. University (India) 1974. Board eligible. Group, partnership, solo. Available.

PULMONARY DISEASES-Somnath N. Naik, M.S., 288 Bay 38 Street, Apt. 5-U, Brooklyn, NY 11214. Seth G.S. (India) 1976. Also, general internal medicine. Board certified (IM). Any type practice. Available July 1982.

Jitemdra C. Shah, M.D., 288 Bay 38th St., 6D, Brooklyn, NY 11214. Seth G.S. Medical (India) 1974. Board certified (IM). Hospital based or group. Available July 1982.

SURGERY, GENERAL-M.S. Bose, M.D., Box 847, Mullens, WV 25882. Andhra (India) 1970. Board certified. Any type practice. Available

Ahmed 1. Khan, M.D., 5627 North 16th Street, Apt. H-8, Phoenix, AZ 85016. Dacca (Bangladesh) 1972. Also, peripheral vascular surgery. Any type practice. Avail-

Robert C. Kahn, M.D., 2516 North 4th Street, Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available July 1982.

Lawrence W. Silvers, M.D., 1350 West Bethune Avenue, Apt. 2002, Detroit, MI 48202. Albany 1976. Also, vascular surgery. Board eligible. Group, partnership, with medical school affiliation. Available July 1982.

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Milan (Italy) 1972. Also colon and rectal surgery. Group, partnership. Available July 1982.

SURGERY, ORTHOPEDIC-Steven H. Fried, M.D., The Hospital for Special Surgery, 535 East 70th Street, New York, NY 10021. Rutgers 1975. Any type practice, plus part-time faculty position. Avail-

Inder J. Singh, M.D., WCMC #1C Beachwood Hall, Valhalla, NY 10595. K.G. Medical, Lucknow (India) 1968. Solo or partnership. Available.

Mark M. Kramer, M.D., 3450-12 Wayne Avenue, Bronx, NY 10467. Vanderbilt 1976. Board eligible. Private practice. Available.

SURGERY, VASCULAR-Pramod Batra, M.D., 600 East 18th Street, Apt. 2-C, Brooklyn, NY 11226. Patiala (India) 1969. Board certified. Solo, group, associate. Available.

A. Ghosh, M.D., Apt. 135, 1645 East Thomas Road, Phoenix, AZ 85016. Prince of Wales (India) 1970. Board eligible. Solo, partnership, group. Available.

Ahmed I. Khan, M.D., 5627 North 16th Street, Apt. H-8, Phoenix, AZ 85016. Dacca (Bangladesh) 1972. Also, general surgery. Any type practice. Available.

Lawrence W. Silvers, M.D., 1350 West Bethune Avenue, Apt. 2002, Detroit, MI 48202. Albany 1976. Also, general surgery. Board eligible. Group, partnership, with medical school affiliation. Available July 1982.

UROLOGY-Dilip R. Patel, M.D., 483 Ocean Parkway, Apt. 4-B, Brooklyn, NY 11218. Baroda (India) 1973. Board eligible. Any type practice. Available.

Alexander M. Pagnani, M.D., 3510 Avenue H. Apt. 2-B, Brooklyn, NY 11210. Guadalajara (Mexico) 1976. Board eligible. Any type practice. Available July 1982.

Ramesh K. Chopra, M.D., 1920 S. First St., Minneapolis, M1 55454. Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available August 1982.

Frederick Greenstein, M.D., 732 E. 91st St., Brooklyn, NY 11236. Downstate Med. 1972. Board eligible. Group, partnership, academic, solo. Available July 1982.



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LETTER TO THE JOURNAL

Response to Medicaid Directors

December 14, 1981

Dear Mr. Russo, Dr. Yuliano, and Dr. Erlichman:

I am in receipt of a copy of your letter to the editor of *The Journal* in regard to my editorial entitled "PRN 1981-66: A Dangerous Medicaid Regulation" that appeared in the October, 1981, issue.

First of all, I would like to point out that while the title of the article was not supplied by me, but rather by the editorial staff of The Journal, I agree with it completely for reasons adequately made clear in the editorial that was written in response to a request by the editorial staff. This request was made immediately following the July, 1981, meeting of MSNJ Board of Trustees, wherein that body unanimously voiced disapproval of PRN 1981-66. The editorial was submitted to The Journal for publication by the end of July, 1981. Initially, I had anticipated that it would appear in the August, 1981, issue but because of the long publication lead time, it did not appear until the October issue, a circumstance over which I had no control. There was no way-short of a crystal ball-that I could have known at the time I wrote the editorial, that you would be meeting with the MSNJ Committee on Medicaid on September 23. 1981, or what actions would be taken at that meeting.

As a member of the MSNJ Board of Trustees and as a former member of the Committee on Medicaid, I am, of course, well aware of the periodic meetings that you have had, in a spirit of cooperation with the Committee on Medicaid. It is perhaps for that reason that I felt disappointed and frustrated that on an issue of such importance to the health care of Medicaid patients that your Department did not seek to apprise, consult, or clear the proposed

regulation, together with the all-important same day surgery procedures list prior to its publication in the June, 1981, New Jersey Register.

In your letter, you state that PRN 1981-66 "was only a proposal and not an implemented rule." Yet the actual proposal as published in the *New Jersey Register* states clearly that:

- 1. Public hearing: None.
- 2. The Department of Human Services thereafter (after July 6, 1981) may adopt the proposal without further notice.

It is our experience that once a regulation is implemented, it becomes a "fait accompli" and is more difficult, if not impossible, to have amended or withdrawn. Therefore, it was felt imperative that the Medical Society of New Jersey act immediately in order to apprise the Department of Human Services of our objections to the regulation as proposed, before implementation.

As to your letter's reference that the proposed regulation offered "ample safeguards to the physician's rights for medical decision making as well as for the patient's safety," I would like to point out that physicians already have "rights for medical decision making" which are inherent in our New Jersey Medical Licensure, PRN 1981-66 tends to apply additional pressures on the physician's decision making by virtue of a same-day surgery procedures list which contains some surgical procedures which never should be done on an outpatient basis. As regards "patient safety," that is precisely why we physicians are more concerned.

Your letter also disclaims a "prior authorization mechanism." Even a "superficial" perusal of my editorial would disclose that I said nothing about a "prior authorization mechanism." What I did say was that the proposal "mandates the physician to document clearly what any complicating factors are—in

advance—which would require admission." Obviously, the decision to admit as well as the documentation, of necessity, would have to take place prior to the actual act of admission.

In my scrupulous scrutiny of the proposal as published in the *New Jersey Register*, nowhere do I see any reference, as alleged in your letter, that "if the situation were one that could have and should have been done as same-day surgical procedures and was not, then the hospital still would be paid, but instead of an inpatient rate, it would be on a same-day surgical rate." Instead, PRN 1981-66 clearly states:

- 1. Certain surgical procedures will have to be done by a hospital outpatient department or in an out-of-hospital setting to be reimbursed by the Medicaid program.
- 2. Hospitals still will be reimbursed for these procedures, but not on an inpatient basis.

If the intent of PRN 1981-66 is to pay hospitals the outpatient rate for inpatient services in these cases, it clearly should have stated this in the published proposal.

Finally, the editorial was not written in a "tar and feather" manner. It was written for the purpose of accurately informing physicians as to the pitfalls of PRN 1981-66 in the hopes of providing "ample safeguards to the physician's rights for medical decision making as well as for the patient's safety." If the Department of Human Services, as a result of this exercise, finally comes to the realization that consultation with the Committee on Medicaid and with the Medical Society of New Jersey prior to the publication of future proposed regulations in the New Jersey Register is necessary, then I feel this effort has been worthwhile.

(signed) Meyer L. Abrams, M.D.

1. Russo, TM, Yuliano, SE, Erlichman, IF, PRN 1981-66. J Med Soc NJ 79:65, 1982.

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CME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry. For information on accreditaton, please contact the sponsoring organization(s), indicated by italics-last line of each item.

ANESTHESIOLOGY

Mar

13- 23rd Annual Postgraduate

Anesthesia Seminar Hyatt House, Cherry Hill (NJ State Society of Anesthesiologists and AMNJ)

CARDIOLOGY

Mar.

17 Nuclear Cardiology 1982

9:30-11 a.m.-Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

25 Ischemic Heart Disease and PVCs 11 a.m.-12:30 p.m.-St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)

Apr.

28 Cardiomyopathy

9-11 a.m.-Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

Etiologies of Myocardial Necrosis and Ischemia

11 a.m.-12:30 p.m.-St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)

MEDICINE (includes Family, Internal, General Medicine, and Dermatology)

Mar.

3 Medical Grand Rounds

11:30 a.m.-VA Medical Center, East Orange

(Endocrinology Section of AMNJ)

3 Dinner Meeting 6-9:30 p.m.-Holiday Inn, East Orange (Endocrinology Section of AMNJ)

Infection in the Geriatric Patient

Scientific Basis for Environmental Disease Control

24 Myofascial Trigger-Point Pain Syndromes 9-11 a.m.-Roosevelt Hospital, Menlo Park

(Middlesex General Hospital and AMNJ)

Endocrine Conferences

10 3:30-5 p.m.—Rotates between Newark

17 Beth Israel Medical Center, College

Hospital, Newark, and VA Medical

Center, East Orange (Endocrinology Section of AMNJ)

Medical Grand Rounds

9:30 a.m.-Newark Beth Israel Medical Center

(Endocrinology Section of AMNJ) Molecular Biological Aspects of Aging II

Age Associated Diseases I 11

18 Age Associated Diseases II

Age Associated Diseases III 4-6 p.m.—Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJ)

Intraabdominal Sepsis

11 Cancer of the Breast Peripheral Vascular Disease

Ischemic Heart Disease and PVCs 11 a.m.-12:30 p.m.—St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)

5 Medical Grand Rounds

11:30 a.m.—College Hospital, Newark (Endocrinology Section of AMNJ)

5 Recognizing and Treating Common Skin 12 noon-St. Mary's Hospital, Orange (AMNJ)

Clinical Disorders of Respiratory Control

Bacterial Meningitis 12

Premalignant Disorders of the

Gastrointestinal Tract Platelet Function

> 8:30-9:30 a.m.—United Hospitals Medical Center, Newark (United Hospitals Medical Center)

10 Tenth Joint Conference 9 a.m.-3:45 p.m.-Coachman Inn, Cranford (NJ Thoracic Society, NJ Chapter American College of Chest Physicians and

AMNJ)10 Fluid and Electrolyte Imbalance 11:30 a.m.—Columbus Hospital, Newark

10 Hyperthyroidism: Not a Diagnosis

24 Infectious Disease Quiz

(AMNJ)

Topic to be announced

9:30-11 a.m.-Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJI

12 Evaluation of the Patient with Suspected Cancer

Immune Hematology

9-10 a.m.-Helene Fuld Medical Center, Trenton (Helene Fuld Medical Center)

13 Update-Low Back Disorders

8 a.m.-4:30 p.m.-John F. Kennedy Memorial Hospital, Stratford (UMDNJ and AMNJ)

13 Allergic Disorders II

8 a.m.-4:30 p.m.-John F. Kennedy Memorial Hospital, Stratford (UMDNJ and AMNJ)

15 Cholestasis 12:30-1:30 p.m.-West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ)

16 Systemic Lupus Erythematosus

12 noon-St. Mary's Hospital, Orange (AMNJ)

16 Prostaglandins and Renal Function in Cirrhosis

> 4-5 p.m.—Middlesex General Hospital, New Brunswick (Rutgers Medical School and AMNJ)

16 Gastrointestinal Bleeding 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

17 Controversies in Medicine, Cancer 1:30-5 p.m.-Kresge Auditorium, Princeton University (NJ Division, American Cancer Society and AMNJ)

17 Dermatological Conference 6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Highway 1, New Brunswick

(Rutgers Medical School and AMNJ)

17 Control of Diabetes Cancer of the Lung

9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and AMNJ)

18 Complex Clinical Problems Allegedly Due to Infections 5-6:30 p.m.—Somerset Medical Center, Somerville (Somerset Medical Center and AMNJ)

19 Hyperalimentation 12 noon-Freehold Area Hospital (AMNJ)

22 Acid and the Distal Nephron 4-5 p.m.—Middlesex General Hospital, New Brunswick (Nephrology Society of NJ and AMNJ)

23 Hypernatremic Dehydration 8:30-10 a.m.—St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)

23 Fluid and Electrolytes 8 p.m.-Warren Hospital, Phillipsburg (AMNJ)

Thirtieth Annual Convention/

The Family Physician in the 80s

27 Hyatt House, Cherry Hill

(NJ Academy of Family Physicians)

Current Chemotherapy 10:30 a.m.-12 noon-St. Mary's Hospital, Passaic (AMNJ)

31 Tuberculosis Updated 1-2:30 p.m.—Christ Hospital, Jersey

(Christ Hospital and AMNJ)

Apr.

I Medical Grand Rounds

9:30 a.m.-Newark Beth Israel Medical Center (Endocrinology Section of AMNJ)

I Age Associated Diseases

Drug Metabolism

Biomedical Research in Aging 4-6 p.m.-Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and



Advances in Clinical Nutrition

University of Pennsylvania School of Medicine

Sixth Annual Nutrition Symposium

The Philadelphia Veterans Administration Medical Center

April 14-16, 1982

The purpose of this program is to provide the practicing physician-pharmacist-nurse-clinical nutritionist-hospital administrator-with a physiologically-based clinical approach to commonly encountered diagnostic and therapeutic problems in adult clinical nutrition. The emphasis throughout will be on the clinically important and practical aspects of nutritional support with maximal audience participation and educational benefit.

Guest Faculty

Albert Bothe, Jr., M.D. John M. Daly, M.D. David H. Elwyn, Ph.D. Frank Franklin, M.D., Ph.D. Steven B. Heymsfield, M.D. David Kritchevsky, Ph.D. Dennis G. Makes, M.D. Michael M. Meguid, M.D.

Course Director

James L. Mullen, M.D. Chief, Surgical Service, Philadelphia VA Medical Center Director, Nutrition Support Service, Hospital of the University of Pennsylvania Associate Professor of Surgery,

Continuing Education Credits Approval has been granted for credits for physicians, nurses, pharmacists and

dietitians.

University of Pennsylvania School of Medicine

Registration Fee: \$90

Educational Coordinator Wanda F. Hain, R.D., M.Ed.

Special Events (complimentary) Cocktail Party at the University Museum An Evening's entertainment at the Playboy Casino in Atlantic City (April 15)

For Information and Registration, contact: Nancy Wink, Program Director Office of Continuing Medical Education, School of Medicine/G-3 University of Pennsylvania, Philadelphia, PA 19104 (215) 243-8005

"Management of Head Trauma in the 80's" CMDNJ—New Jersey Medical School Department of Surgery, Section of Neurosurgery March 27, 1982

Approved for 5.5 Category I AMA credits. Fee \$75

This course will provide the latest update on the practical assessment and management of head trauma-from the time of initial injury through rehabilitation.

For further information please contact Patricia Sarles, M.S. Coordinator For Continuing Education, 100 Bergen Street, Newark, NJ (201) 456-4267

AMNJ)

Hypertensive Diseases

Antifungal Chemotherapy

29 Etiologies of Myocardial Necrosis and Ischemia

11 a.m.-12:30 p.m.-St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)

2 Medical Grand Rounds

11:30 a.m.—College Hospital, Newark (Endocrinology Section of AMNJ) 2 Malabsorption

12 noon-Freehold Area Hospital (AMNJ)

Infections in the Compromised Host 12 noon-St. Mary's Hospital, Orange (AMNJ)

3 Intraocular Lens Course 8 a.m.-2:30 p.m.—Eve Institute of New Jersey, Newark (NJ Medical School)

Orthopedic Symposium 8 a.m.-Rutgers Medical School, (AMNI)

6 Sports Medicine 8 p.m.-Burdette Tomlin Memorial Hospital, Cape May Court House (AMNJ)

7 Leukemia 10:30 a.m.-St. Mary's Hospital, Passaic (AMNJ)

Medical Grand Rounds 11:30 a.m.—VA Medical Center, East (Endocrinology Section of AMNJ)

7 Dinner Meeting 6-9:30 p.m.—Holiday Inn, East Orange (Endocrinology Section of AMNJ)

Endocrine Conferences 14 3:30-5 p.m.—Rotates between Newark

21 Beth Israel Medical Center, College 28 Hospitäl, Newark, and VA Medical Center, East Orange

(Endocrinology Section of AMNJ) 8 Dermatology for the Clinician 12 noon-1 p.m.-Carrier Foundation,

Belle Mead (Carrier Foundation and AMNJ)

Update on Breast Cancer Lymphoma Update

9-10 a.m.-Helene Fuld Medical Center, (Helene Fuld Medical Center)

13 Infectious Diseases

11 a.m.-Greystone Park Psychiatric Hospital (AMNJ)

14 Rheumatoid Arthritis 2 p.m.-John E. Runnells Hospital, Berkeley Heights (AMNJ)

Medical Treatment of Gallstones

Office Management of Urologic Problems in the Male 9:30-11 a.m.—Bergen Pines County

Hospital, Paramus (Bergen Pines County Hospital and

AMNJ) Gastrointestinal Fistulae

1 p.m.-Christ Hospital, Jersey City (AMNJ)

Running Injuries 5-6:30 p.m.—Somerset Medical Center,

(Somerset Medical Center and AMNJ) Shock-Lung Syndrome 12 noon-Freehold Area Hospital

(AMNJ)19 Acne 12 noon-1 p.m.-Mountainside Hospital, Montclair

(Mountainside Hospital and AMNJ) Parenteral Hyperalimentation 12 noon-St. Mary's Hospital, Orange

(AMNJ)Pathophysiology of Selected Disorders in Veterinary Nephrology 4-5 p.m.—Middlesex General Hospital.

> New Brunswick (Rutgers Medical School and AMNJ)

21 Portal Hypertension 9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and AMNJ)

21 Hyperalimentation 10:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ)

21 Dermatological Conference 6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Highway 1, New Brunswick (Rutgers Medical School and AMNJ)

Arthritis

Venous Thrombosis 1-2:30 p.m.-Christ Hospital, Jersey City (Christ Hospital and AMNJ)

22 Case Presentations 8-10 p.m.-Overlook Hospital, Summit (NJ Gastroenterological Society and AMNJ)

26 William P. Burpeau Annual Award 6:30 p.m.—The Manor, West Orange (Urology Section of AMNJ)

27 Adrenal Diseases 11 a.m.-Greystone Park Psychiatric Hospital (AMNJ)

Cardiomyopathy: Hypertensive, Diabetic, Alcoholic, Nutritional, Postpartum 9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

NEUROLOGY/PSYCHIATRY Mar.

Depression and Divorce 8-10 p.m.—39 Crescent Avenue, Passaic (Essex Psychiatric Seminar and AMNJ)

Seminar in Psychotherapy 8:30-10:30 p.m.-Claridge House II, Apt. 10N East, Verona (NJ Psychoanalytic Society and AMNJ)

2 Neurology 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

Psychiatry Case Conference

7:30-9:30 a.m.—Trenton Psychiatric 16 Hospital

(Trenton Psychiatric Hospital and 23

Outpatient Psychotherapy of Psychotic Adolescents

Antidepressants 1-3 p.m.-Ancora Psychiatric Hospital,

Hammonton (Ancora Psychiatric Hospital and AMNJ)

Child Psychiatry Case Conference

8:30-10:30 a.m.—Trenton Psychiatric 17

Hospital

(Trenton Psychiatric Hospital and AMNJI

31 Headaches

> 1:30-2:30 p.m.—Rutgers Community Health Plan, 57 U.S. Highway 1, New Brunswick (Rutgers Community Health Plan and AMNJ)

Behavior Therapy Issues

The Acting-Out Adolescent 12 noon-1 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

Psychiatric Lecture Series

1:30-5 p.m.—Trenton Psychiatric 19 Hospital (Trenton Psychiatric Hospital and AMNJ)

10 DSM-III Update 10:30 a.m.-12 noon-NJ Medical School, Newark (UMDNJ and AMNJ)

12 Joint Meeting of NJPA and NJPS 6:30-9:30 p.m.-Marriott Hotel, Saddle Brook (NJ Psychiatric Association, NJ

Psychoanalytic Society, and AMNJ) 15 Seizure Disorders in Children

12 noon-1 p.m.-Mountainside Hospital, Montclair (Mountainside Hospital and AMNJ)

15 Clinical Problems in Child Psychotherapy 8:30-10:30 p.m.—301 Broad Ave., Englewood (NJ Psychoanalytic Society and AMNJ)

Headaches 9-11 a.m.-Roosevelt Hospital, Menlo Park

31 Classification and Management of

(Middlesex General Hospital and AMNJ) 31 Management of Vascular Headaches

Without Using Drugs 6 p.m.-The Manor, West Orange (Neurology Section of AMNJ)

Apr.

Encephalopathies: Organic Causes of Psychiatric Presentations Gilles de la Tourette Syndrome

12 noon-1 p.m.-Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

Psychiatric Lecture Series

1:30-5 p.m.—Trenton Psychiatric 16

Hospital

30 (Trenton Psychiatric Hospital and AMNJ)

Seminar in Psychotherapy 8:30-10:30 p.m.-Claridge House II Apt. 10N East, Verona (NJ Psychoanalytic Society and AMNJ)

Psychiatric Case Conference

13 7:30-9:30 a.m.—Trenton Psychiatric 20 Hospital

27

(Trenton Psychiatric Hospital and AMNJ)

Anxiety and Depression 1:30-2:30 p.m.—Rutgers Community Health Plan, 57 U.S. Highway 1, New (Rutgers Community Health Plan and AMNJ)

161



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CARDIOLOGY UPDATE...

is designed for the Internist/Cardiologist, which provides an intensive survey of the current status of Clinical Cardiology . . .

Wednesday, March 3, 1982

20 Minute Lectures—Questions and Answers (10 minutes) MODERATOR: Bernard L. Segal, M.D.

SUDDEN DEATH IN APPARENTLY HEALTHY SUBJECTS

Bernard L. Segal, M.D.

PREDICTORS OF SUDDEN DEATH: CASE PRESENTATION

Scott R. Spielman, M.D.

UPDATE—CLINICAL EXPERIENCE WITH NEW ANTIARRHYTHMIC AGENTS: APRINDINE, ENCAINIDE, AMIODARONE, VERAPAMIL, MEXILETINE, TOCAINIDE, BRETYLIUM: CASE PRESENTATION

Irving M. Herling, M.D.

PEDIATRIC RISK FACTORS FOR ADULT CORO-NARY HEART DISEASE

Eshagh Eshaghpour, M.D.

CASE PRESENTATION: DISCUSSION

Mark F. Victor, M.D.

3:00 PM—2nd floor New College Building, Hahnemann Medical College and Hospital

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CATEGORY 1 CREDITS CERTIFIED • WINE &
CHEESE SERVED AT 5:30 P.M. • The Academy of Medicine of New Jersey New Jersey Institute of Ultrasound in Medicine The Vascular Society of New Jersey Radiological Society of New Jersey

present the

4th BIENNIAL SYMPOSIUM ON MEDICAL IMAGING "NEW ADVANCES IN VASCULAR IMAGING"

on

Saturday, March 20, 1982

SHERATON INN—NEWARK AIRPORT Route #1, Elizabeth, New Jersey 9:00 A.M.-3:30 P.M.

The program will include presentations by nationally prominent speakers on small parts sonography, peripheral vascular doppler studies, digital radiography, and interventional radiology. This program is designed for radiologists, vascular surgeons, technicians, and other allied professionals working in the field.

For further information contact:

Linda Bartolo

Academy of Medicine of New Jersey

Two Princess Road

Lawrenceville, NJ 08648

Phone: (609) 896-1717

THE ACADEMY OF MEDICINE OF NEW JERSEY
in cooperation with the
AMERICAN CANCER SOCIETY, N.J. DIVISION,
INC.

present the first in a series of

CONTROVERSIES IN MEDICINE

CANCER SCREENING METHODS DEBATE

or

Wednesday, March 17, 1982 1:00 P.M.-5:00 P.M.

at

KRESGE AUDITORIUM, PRINCETON UNIVERSITY

Princeton, N.J.

The controversies in medicine series will be an annual event. The first issue will be Cancer Screening Methods and the format will be an informal debate. Nationally prominent speakers will present their views and through a moderator have the opportunity to challenge their fellow panelists. Audience participation will be encouraged.

For further information contact:

Henrietta Golub

Academy of Medicine of New Jersey

Two Princess Road

Lawrenceville, NJ 08648

Phone: (609) 896-1717

- 7 Child Psychiatry Case Conferences
- 14 8:30-10:30 a.m.—Trenton Psychiatric
- 21 Hospital
- 28 (Trenton Psychiatric Hospital and AMNJ)
- 14 Neuropsychological Testing 1:30-3:30 p.m.—Trenton Psychiatric Hospital (Trenton Psychiatric Hospital and AMNJ)
- 19 Clinical Problems in Child Psychotherapy 8:30-10:30 p.m.—301 Broad Ave, Englewood (NJ Psychoanalytic Society and AMNJ)
- 21 Biofeedback
- 8 Use of Unconscious Process in Psychotherapy

1-3 p.m.—Ancora Psychiatric Hospital, Hammonton (Ancora Psychiatric Hospital and AMNJ)

21 Violent and Aggressive Adolescents and Young Adults

8:15-10 p.m.—Ramada Inn, Clark (NJ Council of Child and Adolescent Psychiatry, Tri-County Psychiatric Chapter of the NJ Psychiatric Association, and AMNJ)

22 Psychoendocrinological Approaches to Psychiatric Disorders 10:30 a.m.-12 noon—NJ Medical School, Newark

(UMDNJ and AMNJ)
23 Demystifying DSM III

9 a.m.-4 p.m.—Ramada Inn, New Brunswick (Rabbinic Center for Research and Counseling)

OBSTETRICS/GYNECOLOGY

Mar.

- 10 Intrauterine Growth 8:30-9:30 a.m.—Garden State Community Hospital, Marlton (Garden State Community Hospital and AMNJ)
- 12 Semmelweis-Waters Obstetrical/
- 13 Gynecological Conference
- 14 8 a.m.—Resorts International Hotel, Atlantic City (UMDNJ and AMNJ)

Apr.

- 8 Sonography of High-Risk Pregnancy 8:30-9:30 p.m.—Overlook Hospital, Summi (NJ Institute of Ultrasound in Medicine and AMNJ)
- 22 Ovarian Carcinoma
- 23 6:30-8:30 p.m.—Rutgers Medical School, Piscataway (Rutgers Medical School and AMNJ)

PATHOLOGY

Mar.

3 Cloning 12 noon—Freehold Area Hospital (AMNJ)

PEDIATRICS

. .

3 Neonatal Problems 10:30 a.m.—St. Mary's Hospital, Passaic (AMNJ)

- 4 Pediatric Obesity 9 a.m.—Freehold Area Hospital (AMNJ)
- 12 Lecture Series-Pediatric Subspecialties 8:15-9:45 a.m.—Overlook Hospital, Summit (Overlook Hospital, Columbia University College of Physicians and Surgeons, and AMNJ)
- 26 Sickle Cell Disease 7:30-10:30 a.m.—NJ Medical School, Newark (UMDNJ and AMNJ)

Apr

- 1 Childhood Infectious Disease 9 a.m.—Freehold Area Hospital (AMNJ)
- 9 Pediatric Subspecialties
 8:15-9:45 a.m.—Overlook Hospital,
 Summit
 (Overlook Hospital, Columbia University
 College of Physicians and Surgeons, and
 AMNJ)
 7 Sudden Infant Death Syndrome
- 8:30-10 a.m.—St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)

RADIOLOGY

Mar.

3 Newer Diagnostic Imaging Techniques in Medicine 9:30-11:30 a.m.—Dover General

Hospital (Dover General Hospital and AMNJ)

- 4 Pediatric Radiology 5:30-6:30 p.m.—Overlook Hospital, Summit (Overlook Hospital and AMNJ)
- 17 CT Scan in Radiation Therapy Planning 6:30 p.m.—The Manor, West Orange (Radiotherapy Section of AMNJ)
- 18 Topic to be announced 7:15 p.m.—St. Barnabas Medical Center, Livingston (Radiological Society of NJ and Diagnostic Radiology Section of A MNJ)
- 20 New Advances in Vascular Imaging 8:30 a.m.-3:30 p.m.—Sheraton/Newark Airport (Vascular Society of NJ, Radiological Society of NJ, NJ Institute of Ultrasound in Medicine, and AMNJ)

Apr.

- 1 Ultrasound, New Vistas
 - 5:30-6:30 p.m.—Morristown Memorial Hospital (Morristown Memorial Hospital and AMNJ)
- 8 Sonography of High-Risk Pregnancy 8:30-9:30 p.m.—Overlook Hospital, Summit (NJ Institute of Ultrasound in Medicine
- and AMNJ)
 15 Topic to be announced
 7:15 p.m.—Morristown Memorial
 Hospital

(Radiological Society of NJ and Diagnostic Radiology Section of AMNJ)

GENERAL SURGERY

Mar.

3 The Lungs in the Surgical Patient

- 1-2:30 p.m.—Christ Hospital, Jersey City (AMNJ)
- 4 Intraabdominal Sepsis
 11 a.m.-12:30 p.m.—St. Joseph's
 Medical Center, Paterson
 (St. Joseph's Medical Center and AMNJ)
- 5 Prostate CA 12 noon—Freehold Area Hospital (AMNJ)
- 10 Statewide Tumor Board Conference Academy of Medicine of NJ, Lawrenceville (Oncology Society of NJ)
- 12 Patient with Suspected Cancer 9-10 a.m.—Helene Fuld Medical Center, Trenton (Helene Fuld Medical Center)
- 17 Pediatric Surgery
 1:30-2:30 p.m.—Rutgers Community
 Health Plan, 57 U.S. Highway 1, New
 Brunswick
 (Rutgers Community Health Plan and
 AMNJ)
- 23 An Historical View of Surgery at Englewood Hospital 8-10 p.m.—Englewood Club, 115 E. Palisade Ave., Englewood (Englewood Surgical Society, Englewood Hospital, and AMNJ)
- 31 Cancer of Lung 9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and AMNJ)

Apr.

- 14 Acute Aortic Dissection 9:30-11 a.m.—Bergen Pines County Hospital, Parmaus (Bergen Pines County Hospital and AMNJ)
- 15 Organ Donation and Transplantation 11 a.m.-12:30 p.m.—St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)
- 21 Portal Hypertension—Surgical Approaches 9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and AMNJ)
- 23 Breast Cancer 7:45 a.m.—Freehold Area Hospital (AMNJ)

SURGICAL SPECIALTIES (includes ENT, Neurosurgery, Ophthalmology, Orthopedic, Plastic, and Vascular Surgery)

Apr.

21 Pain Syndromes of the Lumbar Spine and Lower Extremities 9-11 a.m.—Roosevelt Hospital, Menlo

Park
(Middlesex General Hospital and AMNJ)

Midalesex General Hospital and AMNJ)
 Biliary Surgery
 8-10 p.m.—Englewood Club, Englewood

(Englewood Surgical Society, Englewood Hospital, and AMNJ)

MISCELLANEOUS

Mar.

3 Medical Legal Aspects of the News 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

- 31 Computers for the Physician's Office 9 a.m.-5 p.m.—Somerset Medical Center, Somerville (NJSIM, Somerset Medical Center, and MSNJ)
- 7 History of Medicine in New Jersey 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)
- 7 Emotional and Social Needs of the Aging 14 Protecting Your License to Practice
- Medicine
 9-11 a.m.—Roosevelt Hospital, Menlo
 Park

(Middlesex General Hospital and AMNJ)

OBITUARIES

Dr. Joseph F.S. Carter

Joseph Frederick Starr Carter, M.D., a member of our Monmouth County component, died on November 25, 1981, in Asbury Park. Born in 1901 in Orange, Dr. Carter received his medical degree from Howard University in 1928 and established a family practice. Dr. Carter was a member of the American Medical Association, was a physician to the Asbury Park Welfare Department, and was the New Jersey State Athletic Commission doctor. During his career, Dr. Carter was associated with the Medical Center in Neptune.

Dr. Ralph P.E. Ciampa

Ralph P.E. Ciampa, M.D., of Long Branch, a member of our Monmouth County component, died on October 31, 1981, at Monmouth Medical Center. Born in Italy in 1906, Dr. Ciampa was graduated from Naples Medical School in 1933 and emigrated to the United States to begin his career as a family practitioner. Dr. Ciampa was a member of the American Medical Association and also was on the courtesy staff of Monmouth Medical Center in Long Branch.

Dr. George B. German

On December 14, 1981, George Burton German, M.D., an emeritus member of our Camden County component, died at his home in Merchantville. Dr. German practiced in Camden for 54 years until his retirement and was associated with Cooper Hospital. Born in 1900, in Delmar, Delaware, Dr. German was graduated from Jefferson Medical College in 1923. When World War II broke out, Dr. German was Chief of Obstetrics at Cooper Hospital; during the war, he assembled an Army evacuation hospital from the staff at Cooper Hospital, and commanded the mobile hospital in the field. For his services, Dr. German was awarded the Bronze Star. Dr. German was a Fellow of the American College of Surgeons, a Diplomate of the American Board of Obstetricians and Gynecologists, a member of the American Medical Association, and a past president of the New Jersey Obstetrical and Gynecological Society.

Dr. Lee C. Hummel

On November 19, 1981, Lee C. Hummel, M.D., an emeritus member of our

Salem County component, died in Easton, Maryland. Born in 1904, in Greenwich, Dr. Hummel was retired from his general practice at the time of his death. Dr. Hummel was graduated from the University of Maryland in 1927 and completed postgraduate training at Cook County Postgraduate School and at New York University. He was a Fellow of the American College of Surgeons, a member of the American Medical Association, and president of the Salem County Medical Society in 1933-1934. During his career, Dr. Hummel was affiliated with Salem County Memorial Hospital where he served as Chief of Surgical Service.

Dr. Sidney H. Joffe

Sidney Harold Joffe, M.D., an emeritus member of our Passaic County component, died on November 15, 1981, in Naples, Florida. Dr. Joffe was a surgeon for 44 years at Barnert Memorial Hospital Center, in Paterson, until his retirement in 1972. Born in 1909, in Haledon, Dr. Joffe was graduated from New York University School of Medicine in 1932 and completed his residency in Paterson in 1935. Dr. Joffe was a Fellow of the

American College of Surgeons, a Fellow of the International College of Surgeons, and a member of the American Medical Association. During World War II, Dr. Joffe attained the rank of major in the Army Medical Corps.

Dr. Erwin J. Kaderabek

At the grand age of 85, Erwin Joseph Kaderabek, M.D., died in New Smyrna Beach, Florida. An emeritus member of our Essex County component, Dr. Kaderabek earned his medical degree in 1926 and received board certification in obstetrics and gynecology. Dr. Kaderabek was a Fellow of the American College of Surgeons and a member of the American Medical Association. During his career, he was associated with Memorial Hospital, in Orange.

Dr. John V. Kearney

At the grand age of 95, John Vincent Kearney, M.D., died on September 21, 1981. A native of Jermyn, Pennsylvania, Dr. Kearney was graduated from the University of Pennsylvania in 1916 and pursued a medical career with an eye, ear, nose, and throat specialty. He was associated with North Hudson Hospital in Weehawken and the Polyclinic Hospital in New York City. Dr. Kearney was an emeritus member of our Hudson County component, and a member of the American Medical Association, the Rush Medical Society in New York City, and the North Hudson Physician's Society.

Dr. Albert E. Marchetti

On December 3, 1981, Albert E. Marchetti, M.D., a member of our Atlantic County component, died in Seattle, Washington. At the time of his death, he was Atlantic County Chief Medical Examiner. Dr. Marchetti was the physician for the Atlantic City Race

Track, doctor for Atlantic County Homes, and, in 1969, flight surgeon at the Federal Aviation Administration Technical Center. Born in 1920, in Camden, Dr. Marchetti was graduated from the University of Guadalajara School of Medicine, in 1957, and completed his residency in Atlantic City Hospital. During his career in Northfield, Dr. Marchetti was associated with Shore Memorial Hospital. He was a member of the American Medical Association, the Aerospace Medical Association, and the American Academy of Family Physicians.

Dr. Francis A. Miele

An emeritus member of our Monmouth County component, Francis Anthony Miele, Sr., M.D., died on November 27, 1981, in Houston, Texas, Born in 1909, Dr. Miele was retired from family practice at the time of his death. Dr. Miele was graduated from Georgetown University in 1935 and completed his internship at St. Francis Hospital in Jersey City. During his 42 years in practice, Dr. Miele served as Chairman of the Board of Health, Chairman of the Zoning Board, Municipal Police Surgeon, and school physician for St. Ann's Parochial School in Keansburg. He was a member of the American Medical Association and was on the staff at Riverside Hospital and Monmouth Memorial Hospital.

Dr. Hyman Oren

Hyman Oren, M.D., an emeritus member of our Bergen County component, died on December 11, 1981. Retired since 1966 as Chief of Obstetrics and Gynecology at Pascack Valley Hospital, in Westwood, he also served as Mayor of Park Ridge. Born in 1908, Dr. Oren earned his medical degree at the University of Michigan, in 1932, and pursued a residency at Hackensack Hospital where he later served as Assistant

Chief of Obstetrics and Gynecology. Dr. Oren was a Fellow of the American College of Surgeons, the American College of Obstetricians and Gynecologists, and the International College of Surgeons; he was a member of the American Medical Association and the first President of the Medical Board at Pascack Valley Hospital. During World War II, Dr. Oren served in the Army Medical Corps.

Dr. Eugene H. Reading

On November 15, 1981, Eugene Henry Reading, M.D., an emeritus member of our Passaic County component, died in Pompano Beach, Florida. Born in 1894 in Tarrytown, New York, Dr. Reading earned his medical degree from New York University in 1926 and established a practice as an orthopedic surgeon until his retirement to Florida in 1969. Dr. Reading was a Fellow of the American Academy of Orthopedic Surgeons, a Fellow of the American College of Surgeons, a member of the New Jersey Orthopedic Society, and a member of the American Medical Association. During his career Dr. Reading was Chief of Orthopedic Surgery and Director of the Department of Physical Therapy at Paterson General Hospital and was a counsulting orthopedic surgeon at Valley View Sanatorium, also in Paterson.

Dr. Abraham Shayevitz

On December 17, 1981, Abraham Samuel Shayevitz, M.D., an emeritus member of our Middlesex County component, died in South River. Born in 1907, he was graduated from the University of Michigan in 1933. During his career, Dr. Shayevitz was affiliated with St. Peter's Hospital and Middlesex General Hospital, both in New Brunswick. He was a member of the American Medical Association and a Fellow of the American Academy of Family Practice.

BOOK REVIEW

Clinical Cardiology

M. Sokolow and M.B. McIlroy. Lange Medical Publications. Los Altos, CA, 1981. Pp 763. (\$21.50)

The updated third edition of this standard text enjoys numerous and major revisions. The figures are clear and appropriate to the text; curiously, most of the figures are borrowed from other, previously published works.

The chapter on "Anatomy and Physiology of the Circulatory System" is concise and yet comprehensive. "History Taking" (Chapter 2) is deficient in some areas. Special forms of dyspnea such as rotopnea, blockypnea, and platypnea are not discussed. Figure 2-1 fails to mention that cardiomegaly does not occur in the pulmonary edema of high altitude. Similarly, the description of ischemic cardiac pain and its differential diagnosis is skimpy.

I found several omissions and corrections in the section on "Physical Examination." The differential diagnosis of clubbing is incomplete. The first heart sound generally is attributed to more than simple closure of the A-V valves. Only the pulmonic ejection click becomes louder with expiration, the aortic is softer, a paradoxical acoustical event. There is no mention of innocent or functional murmurs, a common auscultatory problem.

The discussion of "Clinical Physiology" and "Special Investigations" should be expanded to include limitations of and indications for various methods. I question that "the ECG reflects hypertrophy, whereas the chest film reflects enlargement" (page 86). The paragraphs devoted to echocardiography are too brief and fail to portray this noninvasive method as a major diagnostic tool. In Figure 5-19 the opening snap temporally seems not to be related to the O-point of the apexcardiogram. Nuclear cardiology also suffers from oversimplification and undue brevity.

In the chapter on "Therapeutic Procedures," pacemakers and coun-

terpulsation are dealt with in a superficial and anachronistic fashion.

Chapter 8, "Coronary Disease," is superb and is clearly one of the best in the book. I think that recent efforts aimed at internal disfibrillation should have been mentioned (page 144). Not everyone agrees that variant angina responds to nitrates (page 148). During an anginal episode, most cardiologists would concur, that a fourth "sound" is much more common than a third (page 150). The description of stress testing (page 151) fails to include alterations in R-wave amplitude as a diagnostic criterion, "Acute Renal Failure" (page 189) fails to distinguish acute tubular necrosis from the more common prerenal azotemia. Management of acute myocardial infarction should mention recent advances in transcutaneous coronary angioplasty and the use of intracoronary thrombolytic agents. The review of coronary heart surgery (pages 207-211) is accomplished in an objective, rational manner.

Chapters 9 and 10, "Systemic Hypertension" and "Cardiac Failure," are well done. It should be noted that pleural effusions are due to right heart failure rather than left (page 335). In my experience, nonparoxysmal junctional tachycardia is a very common manifestation of digitalis toxicity (page 351). Some of the phenothiazines, especially thoridiazine, may cause cardiac failure apart from arrhythmias (page 355). The sections on vasodilators and newer inotropic agents in the treatment of heart failure are up-to-date (pages 356-361).

"Congenital Heart Disease" contains some debatable points. The papillary muscle of the conus usually is absent in Fallot's tetralogy (Figure 11-27), and double outlet right ventricle is a variant of transposition, not Fallot's tetralogy. Eisenmenger's syndrome and the Eisenmenger reaction (page 401) are confusing terms.

Some cardiologists would argue that weakness and fatigue are the presenting complaints rather than dyspnea in chronic mitral insufficiency (page 451).

"Conduction Defects" (Chapter 14)

incorrectly identifies Bachmann's bundle as a bypass bundle between SA and AV nodes: most concur that this structure is responsible for left atrial depolarization. The electrophysiologic review makes no mention of the phenomena of vulnerability or supernormality. The authors fail to distinguish Lev's disease from Lenegre's disease (page 502). The former is an idiopathic calcification of the conduction system in older patients, while the latter is an idiopathic fibrosis of the system in younger patients. The listed manifestations of the bradycardiatachycardia syndrome are incomplete (page 505), and "hemiblock" (page 509) is now an obsolete term. "Trifascicular block" includes entities other than left bundle branch block or right bundle branch block with a long H-V interval (page 512). The caption for Figure 14-16 should state that inverted T waves not related to myocardial ischemia frequently are seen when a pacemaker is "turned off." The idiopathic long Q-T syndrome is dealt with only in a cursory fashion (page 531-2).

Atrial premature beats or extra systoles should be replaced by impulses (page 540). The differential diagnosis between atrial tachycardia and flutter is confusing (page 547), and the differential diagnosis of broad-QRS tachycardias similarly is unclear (page 549). Multifocal needs to be replaced by multiform (page 562) in describing premature impulses.

The book concludes with comprehensive sections on infective endocarditis, myocardial and pericardial disorders, as well as pulmonary heart disease, aortopathies, heart disease in pregnancy, and heart disease and the surgical patient.

Despite the minor criticisms mentioned above, I find this third edition of Clinical Cardiology to be an excellent reference text that presents new and notso-new information in a clearly logical manner. I recommend it to all serious students of cardiovascular diseases.

Edwin L. Rothfeld, M.D.

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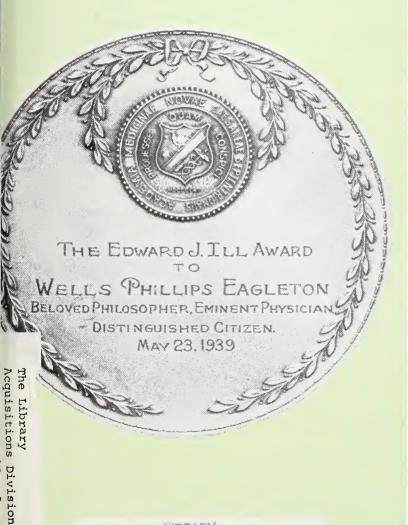
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Cholescintigraphy and Sonography in the Diagnosis of Biliary Tract Disease *P. S. Sirotta, M.D.*

Diabetic Retinopathy
R. Braunstein, M.D.,
A. A. Cinotti, M.D.

Trichinosis—A Common Source Outbreak
S. C. Parman, M.D.

Table of Contents on Page 174



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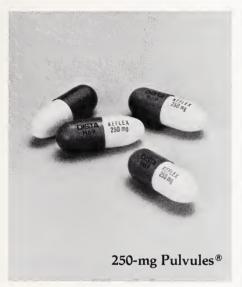
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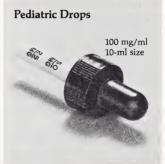
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178 PROFESSIONAL LIABILITY COMMENTARY

EDITORIALS

- 183 Arthur Krosnick, M.D., Honored
- 184 Discrimination Against the Mentally III
- Foundation of UMD 185
- 185 What Is Your Opinion?

- 187 Cholescintigraphy and Sonography in the Diagnosis of Biliary Tract Disease: A Retrospective Study Paul S. Sirotta, M.D., Long Branch
- 196 The State Institution Patient in the General Hospital Setting-A Special Population D. Barton Stevens, M.D., Princeton

STATE OF THE ART

203 The Present Management of Diabetic Retinopathy Robert A. Braunstein, M.D., and Alfonse A. Cinotti, M.D., Newark

CASE REPORTS

- Arachnoid Cvst Associated with Psychological Disturbance Stephen Colameco, M.D., and Robert A. DiTomasso, Ph.D., Voorhees
- 213 Chromobacterium Violaceum Septicemia in New Jersey Jeffrey Myers, M.D., Dante A. Ragasa, M.D., Camillus Eisele, B.A., Mount Holly
- 215 Trichinosis-A Common Source Outbreak Stanley C. Parman, M.D., Summit
- Postsplenectomy Sepsis in an Adult Following Antipneumococcal Immunization Stanley Z. Trooskin, M.D., and Ralph S. Greco, M.D., Piscataway

NUTRITION UPDATE

Nutrition and Immunity Ronald R. Watson, Ph.D., West Lafavette, IN

WHAT IS YOUR OPINION?

- 228 The Case Against the Missionary Position Leon G. Smith, M.D., Newark
- REPORT OF THE NOMINATING COMMITTEE 230

DOCTORS' NOTEBOOK

- 231 Trustees' Minutes: December 20, 1981
- 234 UMD Notes
- 234 MSNJ Auxiliary
- 235 Academy of Medicine Accreditation
- 236 Voluntary Medical Peer Review
- 236 Historical Resources
- 237 Prevention and Modern Treatment of Tuberculosis
- 242 Annual Meeting Daily Schedule
- 244 Physicians Seeking Location
- 247 LETTERS TO THE JOURNAL
- 248 LETTERS OF INTEREST
- 249 PERSONAL ITEMS
- 251 CME CALENDAR
- 255 **OBITUARIES**
- 257 BOOK REVIEWS

On The Cover

The Edward J. Ill Award is bestowed upon a New Jersey physician for dedication and extraordinary service to the profession and to the citizens of the state. This award, granted by the Academy of Medicine of New Jersey, will be presented to Arthur Krosnick, M.D., Editor of The Journal. Read the editorial on Dr. Krosnick on Page 183.

Volume 79 Number 3

8

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eferences: 1. Wilams RL, Karacan I troduction, chap. 1, Sleep Disorders iagnosis and Treatnent, edited by Wilams RL, Karacan I, razier SH, New York ohn Wiley & Sons. 978, p. 2. 2. Data on le, Hoffmann-La oche Inc., Nutley, NJ. Kales A et al: JAMA 41:1692:1695, Apr 20, 979. **4.** Kales A et al: Clin Pharmacol 17:207 13. Apr 1977 and data n file, Hoffmann-La toche Inc., Nutley, NJ. , Kales A: Data on file. loffmann-La Roche nc., Nutley, NJ. Kales A et al: Clin Pharnacol Ther 19:576-583, 4ay 1976. **7.** Kales A. charf MB, Kales JD science 201:1039-1041 Sep 15, 1978. 8. Frost D Jr. DeLucchi MR: Am Geriatr Soc 27:541-546, Dec 1979.). Dement WC et al: Behav Med 5(10):25-31, 10. Vogel GW: Data on ile. Hoffmann-La Roche Inc., Nutley, NJ. 11. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association. Washington, DC, May 3 1971. 12. Pollak CP. McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep wake cycle reversal. Presented at the 15th annual meeting of the Association for Psycho-

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physiological Study of

Sleep, Edinburgh, Scot land, June 30-July 4,

1975. **13.** Zimmerman AM: *Curr Ther Res 13*:18-22, Jan 1971. **14.** Kales A, Kales JD:

Pharmacol Physicians

4(9):1-6, Sep 1970. 15. Data on file, Hoffmann-

La Roche Inc., Nutley,

The Physician's Sleep Glossary

Some common sleep laboratory terms

poly-som-no-graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la-ten-cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af-ter sleep on-set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to-tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.²

re-bound in-som-nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.³



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Contraindications: Known hypersensitivity to flurazepam HCI: pregnancy: Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depres sants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depres sion, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

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The education content of each issue appears as scientific articles, based on research, original concepts relative to epidemiology of disease, and treatment methodology; case reports, based on unusual clinical experiences; review articles; clinical notes, succinct items on some aspect or new observation or technique of a case experience; and special articles, which may include evaluations, policy and position papers, and reviews of nonscientific subjects. Material submitted here is for exclusive publication in The Journal. Upon request of the author, the Committee on Publication may give permission to authors of original material to reprint articles elsewhere with the appropriate credit to The Journal. The principal aim in the preparation of contributions should be relevance to diagnosis and treatment and to education of patients and professionals. Preference will be given to professional authors from New Jersey and to out-of-state lecturers who submit a suitable manuscript based on a presentation made in New Jersey.

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Professional Liability Commentary*

Featuring: Potential Liability Exposure Rule 4:21 Reviewed

PHYSICIANS' JUDGMENT VERSUS FDA DRUG DETERMINATIONS

A New Jersey physician inquired of the Department of Liability Control of the Medical Society of New Jersey for an opinion regarding a physician's liability exposure if he prescribes medications that the FDA has determined lack substantial evidence of effectiveness and are nonreimbursable under the Medicaid and General Assistance Programs.

First, the medicolegal significance of the FDA's determination must be examined. When the FDA determines that a drug lacks substantial evidence of effectiveness, it issues a Notice of Opportunity for a Hearing (NOOH) and interested persons may express their views. Such a hearing is the final administrative step before a drug is withdrawn from the market. The United States Department of Health and Human Services and the Division of Medical Assistance and Health Services of New Jersey have determined that they will not pay for drugs that are subjects of these hearings if they are prescribed to patients under the Medicaid or General Assistance Programs.

Further, prescriptions compounded from ingredients that are the same as, related to, or similar to the formulation of nonreimbursable drugs will require the prescriber to obtain prior authorization from the local medical assistance unit before a reimbursement claim can be submitted.

The nonreimbursement policy was upheld in a recent federal case in which the court noted that the public "would suffer irreparable harm if the reimbursements continued since (the public) would consume ineffective drugs and would face substantial health risks as a result." (National Council of Senior Citizens versus Schweiker, No. 81-2462, United States District Court for the District of Columbia, October 23, 1981.) As a result of this litigation, a bill has passed the United States House of Representatives and is under consideration in the United States Senate at the time of this writing to assure continued payment of these drugs until the FDA makes a final determination as to whether the drug will be taken off the market.

What is the potential liability exposure of a physician who continues, in his best medical judgment, to prescribe non-reimbursable drugs to a patient? As long as no harm results from the use of the drug, liability exposure on the part of the physician is unlikely. However, if the patient alleges that he was harmed as a result of the drug, i.e. his condition worsened as a result of ineffective therapy or he was harmed by a side effect of the drug, the physician must be prepared to defend his medical judgment.

FDA determinations have spoken to issues of drug safety, route and duration of administration, dosage, contraindications, and efficacy in the treatment of certain disease entities. FDA determinations are not intended to restrict or prevent physicians from using professional judgment in treating

patients. However, these FDA drug determinations are evidence of a standard of care to be followed by physicians and may be introduced into evidence by a plaintiff's attorney in a court of law for the jury's consideration.

Moreover, sound medical judgment requires that physicians use drugs in accordance with the best available information. Thus, the physician who prescribes a drug determined by the FDA to be substantially ineffective must be well informed about the drug and be prepared to defend its use by reference to sound clinical studies or prior experience with that drug in the treatment of that patient.

The prudent physician who intends to prescribe a non-reimbursable drug or like combination should tell the patient why that particular drug is being prescribed. The physician may wish to inform the patient of the FDA's determination, unless the physician believes this disclosure would not be in the patient's best interest. As in prescribing any drug, the physician should inform the patient of all reasonable and foreseeable risks and side effects as warranted by the physician's professional judgment. These efforts should be documented in the patient's medical record. If the patient has been helped in the past by treatment with a nonreimbursable drug, this should be noted on the patient's record.

Physicians, in good faith, may exercise professional judgment and use a drug determined ineffective by the FDA. This decision is the physician's responsibility. It also may be his responsibility to inform the patient and to obtain the patient's consent in this regard. Careful documentation is the physician's best defense if his decision to prescribe the drug becomes an issue in a malpractice suit.

All of the above would apply to "less than effective" drugs during the hearing state of the FDA-NOOH proceedings. If the NOOH proceedings result in a final determination of ineffectiveness and are withdrawn, continued physician use of such drugs would be at great legal peril and extremely difficult to defend.

Madelyn S. Quattrone Legal Assistant

RULE 4:21 PANEL REVIEWED

The Committee on Relations with the Medical Profession, chaired by the Honorable Arthur J. Blake, Assignment Judge of Essex County, met to discuss and to review the progress of the Rule 4:21 medical malpractice panel. Specifically, the

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department and Assistant Director and Editor.

Supreme Court has requested the Committee to consider whether the Rule 4:21 experiment should be continued.

Judge Blake informed the Committee that the general consensus is the panels are beneficial even though problems exist in the scheduling of panels, the amount of time devoted to the hearings, and the lack of uniformity in how judges conduct the hearings. The unanimous conclusion of the judges was: the time spent filing a claim to the time of a hearing has shortened; attorneys are better prepared; and the shortness of time from the incident to the hearing has aided in a more realistic presentation.

A more extensive report is being readied for the Supreme Court with the recommendation for continuance of the *Rule 4:21* experiment. Judge Blake commented on the lack of concise data to verify the success of the panel hearings; however, it appears that fewer cases are proceeding to trial than prior to the panel hearings.

MIIENJ has some reservations as to the panel's success, but believes it is too early to determine relative merits and would recommend continuance until such time when sufficient evidence is available to determine the panel's future.

STUDIES ATTEMPT TO PINPOINT PROBLEM AREAS

At the third annual meeting of the American Society for Hospital Risk Management, Robert L. Lambert, M.D., Medical Director for Pennsylvania Hospital Insurance Company, reported on the results of a 1,000-case study of hospital claims.

According to Dr. Lambert, physicians are responsible for three-fourths of the claims brought against hospitals. Dr. Lambert noted in some cases it is willful concealment, a "dishonesty not taught in medical schools, but learned from their peers. The hospital equally is liable of willful concealment if it knows about it. The hospital may have to order the doctor to tell the patient facts which he withheld, preferably with an attorney present. We must put patient protection ahead of hospital or doctor protection."

The salient findings of a collection of data completed early in 1981 follow in descending order of origin:

Physician Nursing Patient Cause

Responsibility

Misdiagnosis Instrumentation Failure to monitor Failure to admit Speciality Surgery Obstetrics/Gynecology Emergency Room Orthopedics Anesthesiology Radiology

In yet another study conducted by Pennsylvania Medical Society Liability Insurance Company (PMSLIC), the six most frequent allegations brought against surgeons are:

Pediatrics

- 1. Negligent trauma management.
- 2. Negligent treatment of fracture.
- 3. Damaged structures during surgery.
- 4. Failure to diagnose and/or treat appendicitis.
- 5. Nerve damage during surgery.
- 6. Postoperative wound infection.

Information extrapolated from these studies are intended to alert physicians to common problem areas and, thus, assist in avoiding exposure to future litigation.

MIIENJ RANKS HIGH AMONG MALPRACTICE COMPANIES

According to *Best Review*, physician-hospital-owned professional liability insurance companies write 51 percent of the total market, a 2 percent gain over last year.

Of the 50 largest writers of professional liability, ?? are the recently formed professionally sponsored companies with premiums totaling more than \$633 million.

St. Paul holds the position as the leading medical malp. vetice insurance writer; St. Paul increased its market share of 12.8 percent, up from 12.2 percent the previous year. Physician-owned Medical Liability Mutual of New York is the second leading writer.

Medical Inter-Insurance Exchange of New Jersey ranks 11th among the top 50 writers and 6th among the top physician-hospital-owned companies. (Loss Minimizer, November, 1981)

MEDICAL GROUP LIABILITY COVERAGE ENTERS MARKET

According to the *Medical Liability Monitor*, professional liability coverage geared to medical group associations has won its first endorsement. Continental Casualty Company, a large conglomerate of insurance companies, has signed a five-year renewable contract with the Medical Group Management Association and the American Group Practice Association.

These two organizations, MGMA and AGPA, represent several thousand single specialty and multispecialty groups, totaling 35,000 physicians.

The salient features of the program are:

- 1. Policies will be offered in at least 40 states; the lowest marketing priority will be in high-premium states of New York and Illinois.
- 2. The insured will be offered a choice of occurrence or claims-made coverage at a basic \$100/300,000 level rising to excess limits of \$25 million.
- 3. Loss control programs will be plugged in as integral coverage.
- Add-ons will include premise liability, personal injury, auto coverage, pharmacy claims, fire and water damage, and malfunctioning leased equipment.

DID YOU KNOW . . .

A structured settlement valued at more than \$5 million for a brain-damaged boy represents Wisconsin's largest settlement? The boy suffered brain damage at the age of two when doctors failed to diagnose and treat epiglottitis. Continued swelling closed the child's trachea and stopped his breathing. Respiratory arrest followed by difficulty inserting a breathing tube deprived the patient of oxygen for seven to ten minutes.

The Oregon Medical Association physician-owned company is offering a 7.5 percent credit on premiums for physicians attending OMA-sponsored loss prevention workshops?

The Rhode Island State Supreme Court is reviewing deathresulting criminal charges against the driver of a car which struck the car of a woman in her ninth month of pregnancy? Hours after the crash her baby was delivered stillborn. The state is arguing "protection of embryonic and fetal life." Defense attorney Paul Chappell worries that if the state prevails, "a whole set of potential crimes against the fetus would open a completely new field of law through extension of 14th amendment rights and that scares the hell out of me." (Medical Liability Monitor, November, 1981.)



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Many times, a diuretic alone can't keep hypertension in check. INDERIDE, however, can pick up where thiazide therapy leaves off.

The combination of propranolol HCl, the world's most trusted beta blocker, and hydrochlorothiazide, the standard among diuretics, enables INDERIDE to exert an additive antihypertensive effect. In fact, a propranolol/hydrochlorothiazide regimen maintained blood pressure below 90 mm Hg in 81.8% to 86.4% of patients followed for 6 to 18 months of therapy.

Low thiazide dosage means reduced risk of hypokalemia.

When thiazides are prescribed in doses greater than 50 mg/day, the potential for hypokalemia increases substantially. What's more, the greater the fall in serum K⁺, the greater the risk of hypokalemia-induced PVCs.^{3,4}

With INDERIDE, the additive hypotensive effect of propranolol HCl allows the effective dose of hydrochlorothiazide to be kept low (25 mg b.i.d.). And by lowering the daily dose of diuretic, INDERIDE also lowers the potential for diuretic-induced side effects. Potassium problems are less likely to occur—yet blood pressure can be controlled consistently.

NDERDE

Each tablet contains INDERAL® | BID 40/2 (propranolol HCl) 40 mg or 80 mg, and hydrochlorothiazide 25 mg

When you know you need more than a thiazide.

Please see Brief Summary of Prescribing Information on following page.

RY RESCRIBING INFORMATION, SEE PACKAGE CIRCULAR) -RIDE® No. 474—Each INDERIDE®-40/25 tablet contains

NO. 4/4—Each INDERIDE *-40/25 lablet contains. Propranolol hydrochloride (INDERAL*) Hydrochlorothiazide No. 476—Each INDERIDE*-80/25 tablet contains: Propranolol hydrochloride (INDERAL*) Hydrochlorothiazide olol hydrochloride AL®) vdrochlorothiazide

40 ma 25 mg 80 ma 25 ma

WARNING: This fixed combination drug is not indicated for initial therapy of hypertension. Hypertension requires therapy thrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension is not static, but must be reevaluated as conditions in each patient warrant

DESCRIPTION: INDERIDE combines two antihypertensive agents: INDERAL (propranolol hydrochloride), a beta-adrenergic blocking agent, and hydrochlorothiazide, a thiazide INDICATION: INDERIDE is indicated in the management of hypertension. (See boxed warn-

CONTRAINDICATIONS: Propranolol hydrochloride (INDERAL®): Propranolol hydrochlo-CONTRAINDICATIONS: Propranoiol hydrochloride (INDERAL*): Propranoiol hydrochloride is contraindicated in 1) bronnchial asthma. 2) allerigs trimites during the pollen seasor; 3) sinus bradycardia and greater than first degree block. 4) cardiogenic shock; 5) right ventroular failure secondary to pulmonary hypertension; 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranoiol; 7) in patients on adherence-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs. Hydrochlorothiazide: Hydrochlo

Hydrochlorothiazide: Hydrochlorothiazide is contraindicated in patients with anulina or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS: Propranolol hydrochloride (INDERAL*): CARDIAC FAILURE Sympathetic
simulation is a vital component supporting circulatory function in congestive heart failure,
and inhibition with beta blockade always carries the potential hazard of further depressing
nyocardial contractuity and precipitating cardiac failure. Propranolol acts selectively without aboilshing the notropic action of digitals on the heart muscore a fatell specific propriation
of orgatism may be reduced by propranolols regulated in the propriation of the myocardium over a period of time additive in depressing AV conduction.

IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of
the myocardium over a period of time can, in some cases, lead to cardiac failure in rare instances, this has been observed diving propranolol therapy. Therefore, at the first sign or
symptom of impending cardiac failure, patients should be fully digitalized and/or given a diuretic, and the response observed diving propranolol therapy. Therefore, at the first sign or
if activities and a distribution of the propranologic propriation of the propriatio

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of progranolist letherapy Therefore, when discontinuance of progranolist planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when progranolis is prescribed for anging pectoris, the patient should be cautioned against interruption or cessation of therapy without the physician's advice if propranolol therapy and take other measures appropriate for the management of unstable angine pectors before coronal entered seasons of the progranolol therapy and take other measures appropriate for the management of unstable angine pectors before coronal entered seasons denoted at risk of banked, it may after the season of the progranolol through the progranologic pectors before the progranologic at risk of banked, it may after the season of the progranologic pectors before the progranologic period of the progranologic pectors.

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use have not been adequately appraised Special consideration should be given to proprano-oils potential for aggravating congestive hear failure. Propranoilo may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propranoilol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing propranoilol slowly. Propranoilol dises not distort thyroid function tests. In PATIENTS WITH WOLFF-APRKINSON-WHITE SYNDROME, several cases have been

reported in which, after propranoiol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg pro-

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the IN PATIENTS UNDE-HGOING MAJOH SURIGEMY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of pheochromocytoma propranolol should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emer-gency surgery, since progranolol is a competitive inhibitor of beta-receptor agonists, its ef-lects can be reversed by administration of such agents, e.g., isopportecenol or levarterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in re-station and maintaining the heart heal thas all so also heep reported.

starting and maintaining the heart beat has also been reported.
IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-CHITIS, EMPHYSEMA), propranoloi should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of

eta receptors
DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its beta-

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its betaadrenergic blocking activity, propranoloi may prevent the appearance of premonitory signs
and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially
important to keep in mind in patients with liable diabetes. Hypoglycemia attacks may be accompanied by a precipitous elevation of blood pressure.
Hydrochlorothiazide: Thiazides may precipitate azotemia in patients with impaired renal
function, cumulative effects of the drug may develop
function cumulative effects of the drug may develop
progressive liver disease, since minor alternations of fluid and efectrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other anthypertensive drugs. Potentiation
occurs with gandloinnor or peripheral adrenoral blocking drugs.

occurs with ganglionic or peripheral adrenargic blocking drugs.

Sensitivity reactions may occur in patients with a history of altergy or bronchial asthma.

His possibility of exacerbation or activation of systemic lupus erythematosus has been re-

USE IN PREGNANCY: Propranolol hydrochloride (INDERAL): The safe use of pr USE IN PREGNANCY: Propranotol hydrochloride (INDERAL): The safe use of pro-pranotol in human pregnancy has not been established. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or fetus be weighed against the expected therapeutic benefit. Embryotixic effects have been seen in annual studies at doces about 10 times the maximum recommended human dose the properties of the prop

PRECAUTIONS: Propranolol hydrochloride (INDERAL*): Patients receiving catechol amine-depleting drugs such as reserpine should be closely observed it proprianolorly amine-depleting drugs such as reserpine should be closely observed it proprianolol is administered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharmacologic activity of proprianolol may produce hypotension amid/or marked bradycardia resulting in vertigo, synopal attacks, or orthostatic hypotension. As with any new drug given over prolonged periods, laboratory parameters should be observed at regular intervals. The drug should be used with caution in patients with impaired.

Hydrochlorothiazide: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals

electrolyte imbalance should be performed at appropriate intervals. All patients receiving this tight therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely hyponatremia, hypochloremic alkalosis, and hypokalemia Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also illuence serum electrolytes Warning signs, respective of cause are dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular to tigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nause

Initial, hypotension, oliguria, tachycardia, and gastrorriesima usususus and vomining and vomining and vomining and develop, especially with brisk duresis, when severe cirrhosis is present or dural may develop, especially with brisk duresis, when severe cirrhosis is present or during concernations to sold of the control of the control

thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged, Diabetes mellitus which has been latent may become manifest during thiazide administra-

Thiazide drugs may increase the responsiveness to tubocurarine

The antihypertensive effects of the drug may be enhanced in the postsympathectomy p-tient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution i not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal impairment becomes evident, consider withholding or discontinuing

not sufficient to preciude effectiveness or interpressor agent to interapeutic act.

If progressive renal impairment becomes ewident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PB! levels without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients o prolonged thiazide therapy. The common complications of hyperparathyroidism such as real illimities, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

AVERSE FIACTIONS: Progranolol hydrochloride (IMDERAL.): Cardiovascular, tradycardia, congestive heart latifue; interislication of AV block hypotension, paresibest of the common service of the progression of the progression

Respiratory: bronchospasm.
Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpu

Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpu, Miscellaneous reversible apopecia Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (praciolol) have not been conclusively associated with progranolol. Climical Laboratory 18st Findings. Elevated blood urea levels in patients with severe hear disease, elevated serum transminase, alkaline phosphatase, lacitate dehydrogenase. Hydrochlorothiazide: Gastromlestinal: anorexia, gastric ririation, nausea, vomitina, cramping, damhea, constipation, jaundice (intrahepatic cholestatic jaundice): pancreatitis

sialadeniti

acudentus. Central Nervous System dizziness, vertigo, paresthesias, headache, xanthopsia Hemarloùgic: leukopenia, agranulocytosis, thrombocytopenia, aplasticanemia. Cardiovascular orthostatic hypotension (may be aggravated by alcohol, barbiturates, or

Hypersensitivity: purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis), fever, respiratory distress including pneumonitis, anaphylactic react

Other. hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restless ess, transient blurred vision ness, transient blurred vision Whenever adverse reactions are moderate or severe, thiazide dosage should be reduce

DOSAGE AND ADMINISTRATION: The dosage must be determined by individual titration

(see boxed warning).

(see boxed warning). Hydrochlorothiazide is usually given at a dose of 50 to 100 mg per day. The initial dose of propranolol is 40 mg twice daily and it may be increased gradually until optimum blood pressure control is achieved. The usual effective dose is 160 to 480 mg per day. One to two INDERIDE tablets twice daily can be used to administer up to 320 mg of pro-pranolol and 100 mg of hydrochlorothiazide. For doses of propranolol gradualer than 320 mg, the combination products are not appropriate because their use would lead to an excessive dose of the bisher decomposition.

dose of the thiazide component

When necessary, another antihypertensive agent may be added gradually beginnin 50 percent of the usual recommended starting dose to avoid an excessive fall in blood

OVERDOSAGE OR EXAGGERATED RESPONSE: The propranolol hydrochloride (INDERAL) component may cause bradycardia, cardiac failure, hypotension, or bronchospasm

The hydrochlorothiazide component can be expected to cause diuresis. Lethargy of vary

The hydrochlorothiazide component can be expected to cause diuresis. Lethargy of van ing degree may appear and may progress to coma within a few house, with minimal depression of respiration and cardiovascular function, and in the absence of significant serum electrolyte changes or dehydration. The mechanism of central nervous system depression with thiazide overdosage is unknown. Gastrointestinal irritation and hypermotility can occur temporary elevation of BUN has been reported, and serum electrolyte changes could occur especially in patients with impairment of renal function. TREATMENT. The following measures should be employed. GENERAL—If ingestion is, or may have been, recent, evacuate gastric contents taking care to prevent pulmonary aspira tion. BRAD/CARDIA—Administer arropine (Q. 25 to 10 mg). If there is no response to vagal or the content of the content ally of short duration, these may require symptomatic freatment. ABNORMALITIES IN BUN AND/OR SERUM ELECTROLYTES—Monitor serum electrolyte levels and renal function, in-stitute supportive measures as required individually to maintain hydration, electrolyte bal-

ance, respiration, and cardiovascular-renal function. HOW SUPPLIED: No. 474 — Each INDERIDE* 40/25 tablet contains 40 mg propranoloi hydrochlorde (INDERILE*) and 25 mg hydrochlorothiazide, in bottles of 100 and 1,000. Also ii unit dose package of 100

package of 100 - Each INDERIDE®-80/25 tablet contains 80 mg propranolol hydrochloride L®) and 25 mg hydrochlorothiazide, in bottles of 100 and 1,000. Also in unit dose package of 100

References: 1 Veterans Administration Cooperative Study Group on Antihypertensive Agents J.A.M.A. 237.2303 (May 23) 1977.2 Bravo, E. L., Tarazi, R.C., and Dustan, H.P. N. Engl. J. Med. 292.66 (Jan.) 1975.3 Hollfleid, J.W. and Staton, P.E. scta Med. Scand. (Suppl.) 1647.67, 1981.4 Holland, O.B., Nixon, J.V. and Kuhnert, L. Am. J. Med. 70, 762. (Apr.) 1981. 7996/282



EDITORIALS

Arthur Krosnick, M.D., Honored by Academy of Medicine of New Jersey

Arthur Krosnick, M.D., Editor of *The Journal* of the Medical Society of New Jersey has been named the recipient of the 1982 Edward J. III Award. This award, granted by the Academy of Medicine of New Jersey, is bestowed upon "a New Jersey physician for dedication and extraordinary service to the profession and the citizens of the state." We agree with the Academy of Medicine that Arthur Krosnick admirably fulfills these criteria.

Dr. Krosnick's service to the people of New Jersey has been primarily in the area of his principle interest: the treatment of diabetes. He set up diabetes detection centers and patient education centers and programs throughout the state of New Jersey. He created and prepared numerous patient education pamphlets and films. He wrote and tested the first programmed instruction course for patient education in diabetes. He developed a statewide telephone education and information program for diabetics and their families, one of the first such programs in the United States. Also, he participated in the formation of the New Jersey Diabetes Association and numerous county and local chapters.

Why has diabetes so captured Dr. Krosnick's professional and private life? As he noted in one of his first editorials for *The Journal*, "Why detect diabetes? There are a myriad of reasons to do so, if only to prevent acute complications. The real reason, however, is clear. Each diabetic should have the benefit of the best help possible for the longest period of time, so that he or she will be able to take advantage of a major research breakthrough when it comes." Helping to achieve that breakthrough has become one of Dr. Krosnick's professional commitments. To that end, he is one of the investigators in the biosynthetic human insulin efficacy study.

Another of Dr. Krosnick's commitments is *The Journal*, and to it he devotes countless hours and endless enthusiasm. His perceptive and insightful editorials, careful editing, and dedication to quality medical journalism have been evident in the success of this publication under his leadership.

Dr. Krosnick is in the private practice of diabetology, in Trenton, New Jersey. In addition to his practice, he has served as Senior Public Health Physician for the New Jersey State Department of Health. He lives in Princeton, with his wife, Evelyn, a charming and dynamic woman who is Manager of the Mercer County Symphonic Orchestra. They have two children: Jon, a doctoral candidate in the Institute For Social Research at the University of Michigan, and Jody, a junior at Yale who has synthesized the interests of her parents to major in biology and music.

The Academy of Medicine will present the Edward J. III Award to Dr. Krosnick at its Annual Awards Dinner, to be held on May 26, 1982.* Other recent recipients of the III



Arthur Krosnick, M.D.

Award have been Dr. James Rogers, Dr. James Todd, Dr. Lena Edwards, Dr. Victor Parsonnet, and Dr. Arthur Bernstein. The first award was given in 1939, in honor of Dr. Ill, the first President of the Academy of Medicine of New Jersey (then called the Academy of Medicine of Northern Jersey).

We congratulate Dr. Arthur Krosnick upon his selection for this great honor, and salute him for his dedication to the medical profession and to the people of New Jersey.

Paul J. Hirsch, M.D. Chairman, Publication Committee Geraldine R. Hutner Managing Editor

^{*}Those wishing to attend this dinner and to join in honoring Dr. Arthur Krosnick should contact the Academy of Medicine of New Jersey, Two Princess Road, Lawrenceville, NJ 08648.

Di crimination Against the Mentally Ill

The mentally ill endure rejection and discrimination. It vas so in the days when they were regarded as lunatics and thrown into dungeons and beaten to drive out their demons. And, it is true today, even in an era of modern psychiatric facilities and treatment, at a time when the psychiatric profession and mental health organizations have done so much to propagate the concept that the mentally ill really are sick people. They are victims of ailments over which they have little control and need care, treatment, public interest, and concern

Abuse of the mentally ill has diminished remarkably during the past 50 years, especially during the last 20 years, with the advent of the psychotropic drugs and with reforms in psychiatric facilities and management. Nevertheless, rejection and prejudice still are very much in evidence. Families, friends, and neighbors still react to a psychotic episode with revulsion, mistrust, and fear, and hold themselves separate and aloof from the victim, even after treatment and recovery. Employers act to divest themselves as quickly as possible of an employee experiencing a mental breakdown, and refuse to rehire that employee when the crisis is over. Communities continue to be reluctant to provide an adequate range of treatment services for those experiencing mental illness, or to provide the returning patient with the services that will enable him to cope and to maintain himself in the community at the level at which he is capable of functioning.

Negative attitudes toward the mentally ill, to some extent, are understandable; patients manifesting the symptoms of psychosis may not be very appealing. Mental illness is expressed in distortions of behavior, emotions, ideation, or speech, including weird grimaces and postures, paranoid delusions and hostility, hallucinations, perpetual motion or frozen immobility, or inappropriate affects. It is easy to see how such actions might arouse anxiety, fright, and hostility in people not accustomed to dealing with mental illness. Even when the symptom picture consists of nothing more than silent withdrawal, the inability to establish communications with the patient or to guide his behavior can be very upsetting.

It is reactions such as these—not meanness or antagonism—that cause negative attitudes toward the mentally ill. People do not want to deal with the strange, frightening, or unknown. They would rather push it "out of sight and out of mind." In the past, the mentally ill were shipped off to remote, isolated institutions. At present, this accounts for the unwillingness of people in the community (including family and friends) to keep the mentally ill in their midst, or to accept them back again when they return from the psychiatric hospital, even though they may be greatly recovered or even symptom-free. Negative attitudes tend to survive, even when the original stimulus no longer is present.

The problem of rejection and discrimination has become more acute in recent years with the advent of deinstitutionalization: the movement to release chronic dependent patients from state mental hospitals. It is argued that most of these patients do not need to remain in a state mental hospital; they can receive short-term, supportive treatment in community facilities. And, of those who return to a state hospital, only a few may need to remain for more than two or three months. With appropriate psychiatric treatment, it is possible to stabilize all but a small proportion of these

patients and return them to their accustomed setting in the community.

The potential for successful readjustment varies from patient to patient. After experiencing a single acute episode of schizophrenia or unipolar depression, some patients may be able to go right back to their families and job or business after a brief interval in a hospital and never again experience a serious reverse. Other patients may have an occasional recurrence that might require another course of treatment. There are the few patients whose condition is chronic, with fluctuating degrees of intensity and who require supportive services—psychiatric, medical, social, vocational, economic—for most or all of their lives. Given this kind of assistance, these patients frequently are able to remain in the community without readmission to a mental hospital except for an infrequent, acute recurrence.

It is this latter group that again has brought into focus discriminatory attitudes toward the mentally ill.

A key element in the rehabilitation of these chronically ill patients is finding a residential and social setting where they can be maintained with some continued protection and supervision. Some are placed in foster care with individual families. Others are placed together in boarding homes or in apartment buildings. In addition to these residential arrangements, efforts are made to establish day centers or other facilities where such patients may gather for companionship, vocational retraining, and education in living skills. Yet, these programs encounter community resistance and rejection because they give visibility to former patients as a group. It is these very structured programs—those that enable the mental health agencies to provide supervision as well as a liaison with various community facilities and services-that are essential to successful readjustment. Official statistics show that hospital readmission rates substantially are lower for patients who are in such programs than for those who independently go back into the community without connection and without a network of support.

During the past several years, community mental health centers and private corporations working under contract with the State Division of Mental Health have encountered intense neighborhood resistance to the introduction of a transitional facility. This is evidence that rejection and exclusion of the mentally ill still is very much in existence. Yet, there are instances of such programs that have encountered no resistance at all or only slight initial resistance that has disappeared after a short while. These cases of acceptance may provide the key toward an approach to the problem of rejection and discrimination. When people are able to see for themselves that most of the recovered mental patients are quiet, orderly, harmless people, they will be more accepting and tolerant of an occasional display of idiosyncratic behavior.

Additional evidence in support of this premise comes from the experience of the New Jersey Association for Mental Health. For the past three and one-half years, that organization has been conducting a program called the Community Companions Program. Volunteers are recruited and trained to work in a one-to-one relationship with a discharged mental patient, and to help that patient move through the difficult process of readjustment—finding a place to live, a job, vocational retraining, friends, social services, religious

affiliations, and above all, continuation of medication and psychotherapy as needed. Volunteers have been recruited, easily and readily, through civic organizations, churches, and articles in the press. This evidence shows that the opportunities are there to break down bias and rejection of the mentally ill. Five hundred volunteers are working with an equal number of patients at present and, since the beginning of the project, more than 2,500 patients have been helped. These volunteers report, almost uniformly, that while there may be occasional instances of resistance and rejection of their patient-companions, this seldom lasts long. It is the exposure and the contact that is effective in changing attitudes.

Other efforts to combat discrimination against the mentally ill are possible. It is of primary importance that professional people with positions of leadership and influence in the community undertake—through lectures, articles, editorials, and personal contacts—to break down misconceptions regarding the mentally ill, and to reveal the truth about their problems and their potential.

One misconception that recently has gained currency and has hindered efforts to help the mentally ill is the notion that the mentally ill are dangerous. There is no question that a small percentage of mentally sick people are dangerous, but it is unfair to characterize all the mentally ill as dangerous

and to isolate them as though they were. The idea that the mentally ill are dangerous is reinforced by in sponsible dramatizations and exaggerations in print, films, and broadcasts. Efforts must be intensified to rectify this tendency. Public fear of the discharged mental patient has been inflamed by assassinations or assassination attempts on the lives of people of importance. We must point out that in the thought one instance—including the attacks on President John F. Kennedy, Senator Robert Kennedy, Martin Luther King, Jr., John Lennon, President Ronald Reagan—has the perpetrator ever been in a psychiatric hospital prior to the attack.

Another way to counter prejudice against the mentally ill is to give support to programs through which discharged mental patients are brought back into the community under appropriate supervision and placed in a structured setting with access to a network of community services. Membership by those in the medical community on the boards and committees of the agencies and organizations doing this work can be helpful. Medical leadership in such projects will facilitate their success, and will add to their credibility and help to diminish the rejection, bias, and discrimination that have made life so difficult for the mentally ill.

Robert S. Garber, M.D.

Foundation of the University of Medicine and Dentistry of New Jersey

The Board of Trustees of the Medical Society of New Jersey recently considered the request of the Foundation of UMDNJ for financial support of \$100,000 for the next five years. The Board previously had allocated an annual contribution of \$10,000 from 1976-1977 through 1980-1981 for a total contribution of \$50,000.

Although the Board feels the work of the Foundation makes a valuable contribution to medical education and research in New Jersey, after hearing opinions from medical organizations and individual physicians (see page 248) and thorough deliberation, it declined the request. The Board members concluded that donations of this type should be made on a personal voluntary basis.

Accordingly, the Board passed a resolution that will be referred to a Reference Committee at the Annual Meeting for consideration. The resolution "urges each and every member of the Medical Society of New Jersey to make a voluntary contribution to the Foundation of the University of Medicine and Dentistry of New Jersey in support of its research programs."

A.K.

What Is Your Opinion?

The editorials in *The Journal* are the responsibility of the Editor and individual editorial authors. Some physicians, however, have opinions that differ from those in print.

In order to be completely fair, we encourage our readers to write their opinions on topics of interest. Controversy tends to make us think and there is an endless list of current topics that deserve discussion.

What about:

- · Competition in medicine
- · The State Board of Medical Examiners
- · The American Medical Association
- · Generic prescriptions

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Cholescintigraphy and Sonography in the Diagnosis of Biliary Tract Disease: A Retrospective Study

PAUL S. SIROTTA, M.D., Long Branch*

Two years of experience with Tc-99m-IDA cholescintigraphy and sonography were reviewed. Patients with suspected acute cholecystitis should be studied first by cholescintigraphy. Sonography is the modality of choice in suspected chronic cholecystitis and in differentiating medical from surgical jaundice, although in questionable cases cholescintigraphy may provide useful, additional information.

ccurate and rapid diagnosis of biliary tract disease today is faciliated by a variety of imaging techniques, including oral cholecystography, intravenous and transhepatic cholangiography, computerized tomography (CT), endoscopic retrograde cholangiopancreatography (ERCP), gray-scale ultrasonography, and nuclear cholescintigraphy. While each of these modalities has a definite role, sonography and cholescintigraphy often are employed as the initial tests, particularly when acute biliary tract disease is suspected.

In the diagnosis of acute cholecystitis, cholescintigraphy with technetium-99m-labeled iminodiacetic acid agents (Tc-99m-IDA) has proved to be highly accurate in determining the status of the cystic duct. Nonvisualization of the gallbladder implies cystic duct obstruction, while the appearance of gallbladder activity within one hour excludes calculous acute cholecystitis with cystic duct obstruction with an accuracy greater than 95 percent. 4-10,30,32 Acalculous cholecystitis occasionally may produce false negative results.5,34 While delayed appearance of gallbladder activity also excludes cystic duct obstruction, this finding has been noted in patients with chronic cholecystitis. In addition, cholescintigraphy may provide useful information in jaundiced patients,4,11 even with high bilirubin levels.30 Evaluation of the postoperative patient also is aided by this method. 12,13

At our institution, sonography usually is employed as the first test to evaluate the hepatobiliary system in suspected acute disease. In addition to imaging the hepatic and pancreatic parenchyma, ultrasonography accurately detects gallstones, ^{23,25} and identifies biliary duct dilatation. ^{22,24-26} The usefulness of sonography in diagnosing acute cholecystitis still is under investigation, and certain sonographic findings, e.g., gallbladder wall thickening, have been proposed.

A retrospective study of our experience with Tc-99m-IDA cholescintigraphy and gray-scale ultrasonography in the diagnosis of hepatobiliary tract disorders was undertaken to determine the relative merits of these examinations at Monmouth Medical Center.

METHODS AND MATERIALS

All Tc-99m-IDA cholescintigrams performed at Monmouth Medical Center from January 9, 1979, to January 20, 1981, were reviewed.

Sequential anterior images of 500,000 counts each were obtained every 15 minutes up to an hour, on either standard or large field-of-view gamma cameras, following the intravenous injection of from 5 to 15 millecuries of a variety of

^{*}Dr. Sirotta is a member of the Department of Radiology at Monmouth Medical Center and may be addressed there, 300 Third Avenue, Long Branch, NJ 07740.

Table 1 Cholescintigraphic Findings From January 9, 1979 — January 20, 1981

Cholescintigraphic Findings	Number of Patients	Diagnosis Determined	Number of Sonograms Performed on Operated Patients		
Patent cystic duct	177	177	17		
Cystic duct obstruction	68	51	45		
Extrahepatic biliary obstruction or Parenchymal liver disease	30	27*	22		
Surgical absence of the gallbladder (by history) Total cases	35 310	35 290	- 84		

^{*} Includes those cases where the diagnosis was based on biopsy, biochemical, or other radiologic criteria, or where the diagnosis was known prior to admission.

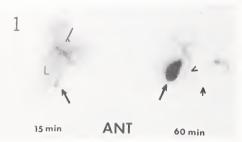


Figure 1—Normal Cholescintigram—Anterior image 15 minutes following the injection of 7 mci of Tc-99m-DISIDA (left) reveals good uptake by the liver (L). Activity within the hepatic ducts (lines) and gallbladder (arrow) is seen. At 60 minutes (right) the gallbladder is well visualized, with activity present in the common bile duct (arrowhead) and duodenum (small arrow) as well.

Tc-99m-IDA compounds (PIPIDA, HIDA, BIDA, and DIS-IDA). Dosage depended on the agent selected and the patient's bilirubin level. Right anterior oblique and right lateral views were obtained when gallbladder activity was identified. Delayed anterior images of from 1½ to 24 hours were obtained when appropriate.

Scans were interpreted as (1) "normal," if gallbladder and bowel activity were noted within one hour; (2) "patent cystic duct," if gallbladder activity first appeared on delayed images; (3) "cystic duct obstruction," if gallbladder activity was absent but transit to the small bowel was observed; (4) "extrahepatic biliary obstruction (EHBO)," if hepatocyte uptake of tracer was normal or increased but no gallbladder or bowel activity was identified; or, (5) "parenchymal liver disease (PLD), if hepatocyte uptake and excretion were decreased. Occasionally, intrahepatic cholestasis was included in the differential diagnosis of EHBO, and in some cases either EHBO or PLD was suggested.

When ultrasonography of the liver and gallbladder was performed on patients who had nuclear scans, and whose diagnosis subsequently was established, these sonograms were reviewed. All examinations were performed on standard gray-scale equipment using a 13 mm, 3.5 mHz transducer, and included sequential images in longitudinal and transverse directions. Variations in gallbladder size, the presence of gallbladder wall thickening, and the status of the biliary ducts were noted in addition to gallbladder contents.

All cholescintigrams and sonograms were interpreted by members of the diagnostic radiology staff. When there were discrepancies between the original interpretations and the pathology, the studies were reviewed by other radiology staff members

Operative and pathologic reports on all patients coming to surgery within one week of cholescintigraphy were examined. In some cases, final diagnosis was based on additional evidence from the clinical course, from biopsy and autopsy reports, or from radiologic or biochemical studies (e.g., transhepatic cholangiography, CT, hepatitis antigen, and others). In a few cases the diagnosis was known prior to admission. In reviewing the pathology reports, interest was directed to the presence of acute or chronic cholecystitis, the presence or absence of gallstones, and the status of the cystic and common bile ducts.

RESULTS

During the period of study, 317 cholescintigrams were performed on 310 patients suspected of having acute hepatobiliary tract disease. There were 398 cholecystectomies performed during this same period.

Table 1 shows the distribution of cholescintigraphic findings. Nuclear scans on 177 patients were interpreted as normal or patent cystic duct (Figure 1). Nineteen of these patients had cholecystectomies performed within a week of the nuclear scan. Sonograms were performed in 17 of these 19 operated patients. In the remaining 158 patients, the subsequent clinical evaluation excluded acute hepatobiliary disease.

Cystic duct obstruction was noted in 68 patients. Fifty-one of these patients came to surgery; sonograms were performed on 45 patients.

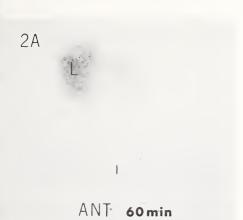
In 35 cases, a prior cholecystectomy accounted for non-visualization of the gallbladder on nuclear scan. All of these scans revealed normal transit of activity to the bowel, and were excluded from further study.

In 30 patients, findings suggesting EHBO, PLD, or intrahepatic cholestasis (IHC) were noted, precluding evaluation of the cystic duct. The final diagnosis was established surgically in 19 patients. In 8 patients, the diagnosis was based on additional studies or was known prior to admission. The 3 remaining cases with the diagnosis unknown were excluded from the study. Sonograms were performed on 22 of these 27 patients.

Of the 69 patients having cholecystectomies within a week of cholescintigraphy, 42 had acute calculous cholecystitis by pathological examination while 7 patients had acalculous cholecystitis, for a total of 49 patients with acute cholecystitis. Chronic cholecystitis was reported in 19 pa-

Table 2
Distribution of Cholescintigraphic and Sonographic Findings in Patients with Suspected Gallbladder Disease

		Nuc le	ear Scan			Sonography					
Diagnosis	Number	CDO*	not CDO	Total	Positive	Negative**	Stones	Sludge	Thick Wall		Size Smail
Acute calculous cholecystitis	42	38	4	37	34	3	27	6	2	16	4
Acalculous cholecystitis	7	6	1	6	4	2	0	2	1	3	0
Chronic cholecystitis	19	7	12	17	15	2	13	1	1	3	2
Normal	1	0	1	1	0	1	0	1	0	0	0
Gallstones	60	45	15	52	46	6	39	7	3	19	7
Total	69	51	18	61	53	8	40	10	4	22	6
*Cystic duct obstruction **Includes nondiagnostic sonograms as well											



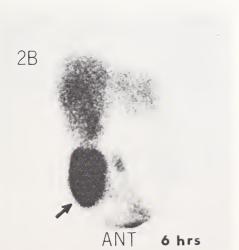




Figure 2—Acute Cholecystitis—2A, Cholescintigram at 60 minutes reveals no gallbladder activity. Liver uptake (L) is normal. The bladder is faintly visualized below (line); 2B, At 6 hours, the gallbladder still is not visualized, indicating cystic duct obstruction. Activity is noted in the small bowel and cecum (arrow), indicating a patent common bile duct; 2C, Longitudinal sonogram of the gallbladder reveals gallbladder enlargement. Stones with acoustical shadowing are present (arrow).

tients. One patient had a normal gallbladder on examination by the pathologist. Cholelithiasis was present in 60 patients. Table 2 shows the distribution of disease in these 69 operated patients, with cholescintigraphic and sonographic findings in each category.

ACUTE CHOLECYSTITIS

Cholescintigraphy demonstrated cystic duct obstruction in 38 of 42 patients with proven acute calculous cholecystitis (Figure 2A,B), as well as in 6 to 7 patients with acalculous cholecystitis. Thus, cholescintigraphy correctly identified 44 of 49 patients with acute cholecystitis, for a sensitivity of 90 percent. In 4 patients with acute calculous cholecystitis, the scans were read as normal. On one of the negative scans,

Table 3 Tole to Gallbladder Visualization in 19 Patients with Chronic Cholecystitis									
	15 min.		Tim 45 min.	1			Non- visualized		
Number of Patients	2	5	2	0	2	1	7		

review showed that a portion of the duodenum had been identified incorrectly as gallbladder. The remaining three, however, were considered normal upon review. One patient with acalculous cholecystitis also had a normal cholescintigram.

Cystic duct obstruction also was noted in 7 of 179 patients subsequently shown not to have acute cholecystitis, for a specificity of 96 percent. All 7 patients had chronic cholecystitis.

Of 37 sonograms performed on patients with proven acute calculous cholecystitis, 34 (92 percent) had abnormal findings suggesting gallbladder disease (Figure 2C), while 3 either were normal or nondiagnostic. Gallstones were identified in 27 patients, with sludge noted in an additional 6 patients. The gallbladder was enlarged in 16 patients, shrunken in 4, and of normal size in 17. Gallbladder wall thickening was noted in 2 patients. Six sonograms were performed on 7 patients with acalculous cholecystitis, 4 had abnormal findings (Table 2), while 2 sonograms appeared normal. Gallbladder enlargement and sludge were the most common findings. Thus, 38 of 43 patients with acute cholecystitis had sonograms compatible with gallbladder disease, for a detection rate of 92 percent. It should be noted, however, that the possibility of acute cholecystitis was suggested only when the sonogram revealed either gallbladder enlargement, sludge, or wall thickening. There were 24 such sonograms, for a sensitivity of 56 percent.

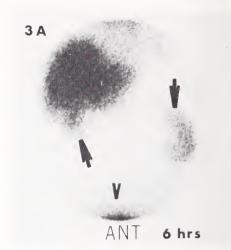
CHRONIC CHOLECYSTITIS

Cholescintigraphy correctly excluded cystic duct obstruction in 12 of 19 patients (63 percent) with proven chronic cholecystitis, while cystic duct obstruction compatible with acute cholecystitis was noted in 7 patients. Table 3 shows the time to gallbladder visualization in the 19 patients with chronic cholecystitis, and Table 4 shows the duration of the cholescintigram in the 7 patients with chronic cholecystitis whose scans were falsely positive for cystic duct obstruction. Of the 12 scans where cystic duct obstruction was excluded, 9 (75 percent) had gallbladder activity first appear within one hour, resulting in normal scans. Thus, delayed gallbladder visualization consistently did not reflect the presence of chronic cholecystitis in this series. Of the 7 false positive scans, 3 scans were not delayed beyond two hours, while 6 scans were not delayed beyond four hours.

Sonography revealed abnormalities of the gallbladder in 15 of 17 examinations performed on patients with chronic cholecystitis. Findings suggesting acute cholecystitis were noted in two patients, however, subsequent cholescintigraphy correctly excluded this possibility. Two sonograms were nondiagnostic.

In all, there were 60 patients with proven cholelithiasis (Table 2). Cholescintigraphy detected 45 of these (75 percent), at the expense of seven nuclear scans falsely positive for cystic duct obstruction. Sonography correctly detected

Table 4
Duration of Cholescintigram in Seven Patients with
Chronic Cholecystitis and Nonvisualized Gallbladder
Duration



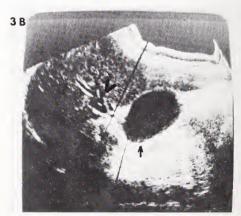


Figure 3-Extrahepatic Biliary Obstruction—3A, Cholescintigram at six hours reveals increased liver uptake of tracer with no evidence of gallbladder, bile duct, or bowel activity. The alternate route of excretion is through the kidneys (arrows). Bladder activity is present (arrowhead); 3B, Longitudinal sonogram through the liver and gallbladder reveals an enlarged gallbladder containing sludge (arrow). There are dilated ducts in the liver (arrowhead); diagnosis was carcinoma of the head of the pancreas.

gallstones in 39 of 52 examinations performed (75 percent). However, in an additional seven sonograms echogenic material within the gallbladder without acoustical shadowing was noted, compatible with either sludge or sand-like stones.

Table 5 Cholescintigraphic and Sonographic Findings in 27 Patients with Nuclear Scans Suggesting Liver or Bile Duct Disease

		Choleso	intigra	phy			Son	ography		
Final	Number	EHBO	PLD	EHBO	EHBO	Con	npatible	Not C	Compatible	Total
Diagnosis	of Patients	; 		or PLD	or IHC	Number	Findings	Number	Findings	
Extrahepatic										
Biliary										
Obstruction (EHBO)		11	3	0	3	11		3		14
Choledocholithias	is 7	4	0	0	3	-5	Dilated Ducts		Normal	6
Pancreatic Tumor	7	6	1*	0	0	4	Dilated Ducts	2	Normal	6
Pancreatitis	2	0	2**	0	0	1	Dilated Ducts	0		1
Bile Duct Tumor	1	1	0	0	0	1	Dilated Ducts	0		1
Parenchymal Liver										
Disease (PLD)	7	0	5	2	0	4		1		5
Cirrhosis	3	0	2 3	1	0	2	Normal Ducts	0		2
Hepatitis	4	0	3	1	0	2	Normal Ducts	1	Pancreatitis	3
Intrahepatic										
Cholestasis	_1	0	0	0	_1_	_1	Normal Ducts	0		_1
Cholecystitis	_ 2	_2_	0	0	0	2	Stones; Norma	1 0		2
Total Patients	27	13	8	2	4	18	Ducts	4		22
*with hepatic metas	tasis	**al	cohol-i	nduced						

Small stones were present at pathology in all seven. Thus, the sensitivity of sonography for gallstones in this series was 87 percent.

EXTRAHEPATIC BILIARY OBSTRUCTION (EHBO), PARENCHYMAL LIVER DISEASE (PLD), AND INTRAHEPATIC CHOLESTASIS (IHC)

The distribution of pathologic, scintigraphic, and sonographic findings where the nuclear scan suggested abnormalities of the liver or bile ducts in 27 patients is shown in Table 5.

Of 17 patients with a proven cause of EHBO, cholescintigraphy definitely identified the site of disease in 11 patients (65 percent), while suggesting the site of disease in an additional 3 patients, Sonographic findings were compatible (dilated ducts) in 11 of 14 examinations (79 percent) (Figure 3). Five of 7 patients with hepatitis or cirrhosis were identified correctly by cholescintigraphy (71 percent) with PLD suggested in 2 other patients. Sonography excluded ductal obstruction in 4 of 5 examinations performed (80 percent) (Figure 4). One patient with benign recurrent cholestasis was identified correctly by cholescintigraphy; however, this diagnosis was based on prior knowledge of the sonographic findings (normal ducts). Interestingly, 2 patients with cholecystitis and no evidence of choledocholithiasis at surgery were felt to have EHBO on cholescintigraphy, whereas sonography correctly had excluded ductal obstruc-

Overall, cholescintigraphy definitely identified the site of disease in 16 of 27 cases (59 percent), while sonography accurately distinguished medical from surgical disease in 18 of 22 examinations (82 percent).

DISCUSSION

Since Loberg and others first introduced Tc-99m-labeled N-substituted iminodiacetic acid agents for hepatobiliary scanning, 1-3 they have proved to be of great use in the diagnosis of acute cholecystitis, with accuracy greater than

95 percent generally reported. 4-11,30,36 The incidence of false negative scans is low, with these tending to occur in cases of acalculous cholecystitis. This is to be expected, since gallbladder visualization will occur when the cystic duct is patent. In the majority of cases, acute cholecystitis is due to cystic duct obstruction by calculous, with nonobstructive cholecystitis occurring in 5 percent to 8 percent of patients.32 In this group, then, false negative cholescintigrams tend to occur. However, the actual reported incidence of false negativity in cases of acalculous cholecystitis is lower than the incidence of this disorder.5,11 False negative cholescintigrams also have been reported in cases of gangrenous cholecystitis with cystic duct patency.5,32 Rene reported a case of a normal cholescintigram occurring in a patient who had transient cystic duct obstruction and acute cholecystitis.32 Thus, a change in the status of the cystic duct may occur during the evaluation of such patients, resulting in false negative and, conceivably, false positive results.

False positive cholescintigrams may occur in cases of chronic cholecystitis. Nicholson et al. reported this in 34 percent of patients studied. The incidence of false positives can be reduced by routinely obtaining delayed images when gallbladder activity fails to appear by one hour. In many cases the use of cholecystokinin has been shown to result in gallbladder visualization, even when activity in the gallbladder has failed to appear by two hours or longer, thus excluding cystic duct obstruction. In While some authors have shown the one-hour cholescintigram sufficient to diagnose or exclude acute cholecystitis, most now agree that delayed images of at least two hours and in some cases four hours should be obtained.

Our experience compares favorably with that of others. Cholescintigraphy had a sensitivity of 90 percent and specificity of 96 percent in diagnosing acute cholecystitis at our institution. Of the five false negative scans, one was misinterpreted. Another occurred in a case of acalculous cholecystitis. One of the remaining three patients with acute calculous cholecystitis had a patent but markedly narrowed





Figure 4—Parenchymal Liver Disease—4A and 4B, 15-minute and 60-minute cholescintigraphic images reveal poor liver uptake (L) and no excretion. Blood pool activity is present in the heart (H); 4C, Delayed image at 24 hours shows renal excretion of tracer (small arrows), as well as tracer within the colon (large arrow), indicating a patent common bile duct. The cystic duct cannot be evaluated due to the poor excretion; 4D, Longitudinal sonogram through the liver (L) and right kidney (K) reveals no evidence of dilated ducts; diagnosis was hepatitis B.

cystic duct (less than 1 mm). In this case, intermittent cystic duct obstruction may have accounted for acute cholecystitis with a negative scan. In the remaining two patients, the cystic duct contained calculi at pathology. It is possible that the status of the cystic duct changed between the time of nuclear scan and surgery, although no more than two days elapsed in either case. Alternatively, the calculi might have resulted in partial, rather than complete obstruction.

Of the seven false positive cholescintigrams in patients with chronic cholecystitis, three scans were not delayed beyond two hours, while three others were delayed to four hours and one scan to seven hours. The use of cholecystokinin may have eliminated some of these. However, the overall specificity of 96 percent is quite acceptable. False positive scans did not occur in any patient subsequently shown to have no gallbladder disease.

In this series, delayed appearance of gallbladder activity consistently did not reflect the presence of chronic cholecystitis, since in 9 of 12 proven cases visualization occurred within an hour. Thus, although delayed visualization suggests the possibility of chronic cholecystitis¹¹, prompt visualization does not exclude it.

The value of sonography in differentiating medical from surgical jaundice is well known, and need not be reviewed here. 4.9.22-27.29 In the diagnosis of acute cholecystitis, the role of sonography is less clear. Demonstration of calculi, even in the region of the gallbladder neck or cystic duct, need not imply acute cholecystitis, although in the patient with signs and symptoms of acute cholecystitis, these findings are highly suggestive. 38 Even when calculi are present in the cystic duct, imaging this area sonographically often is difficult.

In studies comparing sonography with other modalities such as intravenous cholangiography and infusion tomography and OCG,^{21,31} sonography has proved useful in diagnosing acute cholecystitis in the appropriate clinical

"... a negative sonogram does not exclude acute cholecystitis."

"A more specific finding was a sonolucent 'rim' within a thickened gallbladder wall...."

5A



Figure 5—The "Rim" Sign in Acute Cholecystitis—5A and 5B, Longitudinal and transverse sonograms of the galibladder reveal thickening of the wall of the galibladder (arrows), with a sonolucent rim within the galibladder wall, felt to represent the edema of acute inflammation. A galistone with acoustical shadowing also is present.

setting. However, Jarvinen noted that as many as one-third of the patients with this disease may be missed if sonography alone is employed.³¹ Karp reported that infusion tomography was superior to sonography, but recommended sonography as a useful screening procedure in suspected cases, where the presence of gallbladder enlargement or calculi might eliminate the need for further testing.²¹ However, he stressed the fact that a negative sonogram does not exclude acute cholecystitis. Thus, while the findings of gallstones, gallbladder enlargement, or even sludge (inspissated bile) are suggestive, they are not diagnostic.⁹

One sonographic sign that has received considerable attention is the finding of a thickened gallbladder wall. Handler described this finding in cases of both acute and chronic cholescystitis.14 Also, Mindell reported this finding in acute cholecystitis.17 Finberg noted that acute and active inflammation always was present when gallbladder walls thicker than 4 mm were noted at sonography.16 Other authors, however, have urged caution, noting gallbladder wall thickening in a number of hypoproteinemic and edematous states. 18,20 A more specific finding was reported by Marchal,15 who described a sonolucent "rim" within a thickened gallbladder wall representing wall edema. Figure 5 shows an example of this finding. At present, it seems best to interpret sonographic evidence of acute cholecystitis conservatively. In this series, gallbladder abnormalities were present sonographically in 92 percent of proven cases of acute cholecystitis, although this diagnosis was suggested in only 56 percent, based on gallbladder enlargement, sludge, or wall thickening.

In the diagnosis of chronic cholecystitis, sonography must be considered superior to cholescintigraphy, since no findings on nuclear scan have been described to definitely identify gallstones. In this series, the sensitivity of sonography for gallstones was 87 percent, which compares favorably with the literature. When sonographic findings are unclear (or when they differ from oral cholecystographic findings), cholescintigraphy may be of use if delayed visualization occurs, with or without the use of cholecystokinin. When there is a suspicion of acute cholecystitis superimposed on known chronic disease, cholescintigraphy should be the initial test performed.

Of the cases of extrahepatic biliary obstruction, parenchymal liver disease, and intrahepatic cholestasis reviewed, sonography differentiated the causes of jaundice in 82 percent, as compared to 59 percent for cholescintigraphy. Cholescintigraphy, therefore, should be reserved as a secondary procedure in cases when sonography is technically suboptimal or when the sonographic findings conflict with the clinical suspicion. In a cost analysis of the relative advantages and disadvantages of cholescintigraphy and sonography in differentiating large and small duct obstruc-

tion. Mingensmith et al. noted that in suspected large duct obstruction, sonography should precede cholescintigraphy, while are reverse was true in suspected small duct obstruction. In addition, while the finding of dilated biliary ducts sets EHBO, normal caliber ducts may be present, particarly when the cause of obstruction is choledocholiniasis. 32.36 By demonstrating absent or delayed transit of tracer to the small bowel, cholescintigraphy may identify the cause of jaundice. 9.11.33 Similarly, in cases of parenchymal liver disease with normal caliber ducts at sonography, cholescintigraphy may document PLD by demonstrating diminished tracer uptake by the liver and prolonged blood pool activity. Thus, these tests have complementary roles, with sonography taking the lead. 27

SUMMARY

Two years of experience with Tc-99m-IDA cholescintigraphy in the diagnosis of biliary tract disease were reviewed, and results were compared with available sonographic examinations in the same group of patients. In patients with proven acute cholecystitis, the nuclear scan was 90 percent sensitive and 96 percent specific. While sonography revealed gallbladder abnormalities in 92 percent of these patients, the possibility of acute cholecystitis was suggested by the interpreter in only 56 percent. Sonography was 87 percent sensitive in detecting cholelithiasis. Thus, IDA scanning is the procedure of choice for suspected acute cholecystitis, although a number of sonographic findings are suggestive. Sonography is superior in the diagnosis of chronic cholecystitis, although cholescintigraphy may play a role in questionable cases. Time to gallbladder visualization on nuclear scan consistently did not reflect the presence of chronic cholecystitis. In cases of suspected disease of the bile ducts and liver, sonography should precede cholescintigraphy, since sonography was more accurate in identifying the site of disease. However, cholescintigraphy is an important secondary modality in differentiating medical from surgical jaundice.

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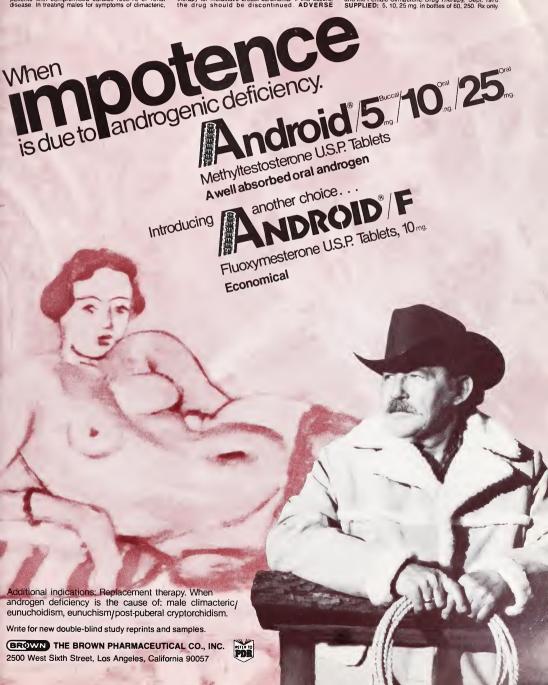
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DESCRIPTION: Methyltestosterone is 17β -Hydroxy-17-Methylandrost-4-en-3-one ACTONS: Methyltestosterone is an oil soluble and togenic hormone state of a soluble and togenic hormone described by the soluble state of the

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. CONTRAINDICATIONS: Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. WARNINGS: If prajism or other signs of excessive sexual stimulation develop, discontinue excessive dosage may cause inhibition of testicular function, with resultant oligospernia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. ADVERSE

REACTIONS: Cholestatic jaundice * Oligospermia and decreased ejaculatory volume * vivpercalcemia particularly in patients with metastatic base to carcinoma. The control of the control of



The State Institution Patient In the General Hospital Setting— A Special Population

D. BARTON STEVENS, M.D., Princeton*

Occasions arise on which the facilities and specialty skills of a general medical center are needed by the inmates of a state institution. Such a population with a common diagnosis of "seizure disorder" has special needs for diet, nursing care, and medical management.

e often are asked by resident physicians, nurses, and medical and nursing students to justify a major therapeutic effort on behalf of a patient with advanced mental deterioration and deficiency. Such efforts span the full range from chest and vascular surgery through the management of breast and gastrointestinal malignancies, to pneumonias, anemias, diabetes, and hepatitis. The philosophical basis for our approach to these patients rests on our firm conviction of their humanity. No other justification is felt to be necessary, and our approach is tempered by our judgment as to reasonable care and effort as it applies to all of our patients.

The source of these patients is a 600-bed state institution for the developmentally disabled in central New Jersey: the New Jersey Neuropsychiatric Institute. It contributes from 55 to 65 inpatient admissions to our medical center per year, over half of which are to the general surgery, urology, ophthalmology, and ENT services. Our experience has been cumulative since 1952. The low volume of surgery does not justify the maintenance by the state of a surgical unit at the Institute with routine and support equipment, personnel, and the resultant expense. The radiology department at the Institute is rudimentary. All films are sent to a radiologist in another community for interpretation. Laboratory facilities also are limited and are not staffed during nights and weekends.

It should be noted that the patients we see at Princeton Medical Center usually are the most severely retarded and physically handicapped of the state institution population and are not representative of the average institutional resident. Many of our patients are functioning at extremely low mental ages. Their emotional responses often are appropriate to those of children. Others are somewhat more mature. White-haired patients in their 70s often have dolls; many in their 40s or 50s take much pleasure in playing with preschool toys. They are very dependent and most respond to love and kindness as we all do.

The degree of awareness of their surroundings can vary depending on mental age and sensory deprivation (usually blindness). Many have speech which is difficult to understand. On admission they are often tense and frightened because of pain, apprehension, strange faces, surroundings, and voices; they are anxious due to separation from friends and their own beds and lockers. Every effort should be made to make them feel secure. It is an error to assume that they do not understand what is said around them. The same discretion is advised as with other patients. Some of these patients use foul, inappropriate, or colorful language on occasion. This usually is repetitious and without conviction or direction. Some patients withdraw from the touch of anyone. This presents problems in collecting laboratory

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specimens and routine nursing care such as bathing. Some have a grotesque appearance from mild degrees of facial contortion, heavy brow ridges and scarring from repeated seizures and the resultant injury, marked contractures of the extremities, and arrested physical development, microcephaly of mild to severe degree, hydrocephaly, and neurofibromatosis to Sturge-Weber syndrome with enormous hemangiomas occupying an entire trigeminal distribution. These patients often are startling when first seen, but this does not alter their need for kindness and good medical and nursing care. The mature practitioner will have no difficulty in adjusting to a somewhat different professional relationship.

A potential for violence on the part of a few patients is always present. This rarely causes difficulties since such patients long since have been identified and can be controlled by experienced personnel and medication. Striking out, forceful resistance to examination or treatment, occasional biting, and grabbing of hands or clothing are the usual patterns. These characteristics always are described on the transfer form. A standard approach to the violent or disruptive patient should be in any nursing procedure book and thoroughly understood by the nursing and medical house-staffs.

With epilepsy as a very frequent denominator, a wide range of clinical syndromes is recognized in the state institution patient population. Such facilities often are museums of neuropathology. Certain other clinical problems also occasionally are present: serum hepatitis, amoebiasis, and shigellosis may be endemic and pulmonary tuberculosis may be observed. All transferred patients are tested for HB antigen and, if stools are abnormal, they are tested for blood, pathogens, ova, and parasites.

The patients often are on anticonvulsant medication such as phenytoin (Dilantin®) and phenobarbital, and occasionally on neuroleptics, ferrous sulfate, multivitamins, and stool softeners. Under the stress of disease and a strange environment, the need for seizure-control medication may increase and the regimen used for years of stability no longer may be adequate. The staff must be alert for seizures. A phenytoin level should be taken on admission. A therapeutic level of 10-20 µg/ml is suggested.

The patient's family often is deceased or remote and he may be under a court-appointed guardian. In our experience these guardians have been responsible, knowledgeable, cooperative, and helpful. Other patients have responsible relatives, or even apparently doting parents. We have observed the gamut from rejection through guilt and real (or apparent) concern to anger and abuse.

On admission to the general hospital a transfer note usually is available, together with necessary permits for diagnostic procedures and anesthesia and surgery. A nurse's description of the patient's affect and degree of cooperation is very useful. A list of medications is most helpful. These patients suddenly may go into status epilepticus if deprived of their usual medication, and present a preventable and sometimes fatal complication to an otherwise reversible clinical situation.

It should be noted that most will be on a "regular" diet. This may not be the same as a regular diet in a general hospital, but is a soft diet with ground meat. The gingival hypertrophy, dental caries, and peridontal disease common in patients on phenytoin makes chewing impossible. Also, knives and forks may become weapons and cannot be made available to some patients. Therefore, the only food they are

accustomed to can be eaten with a spoon. One must remove plastic wrap from pudding; they have never seen it before and will be unable to cope with it. Many will need essistance with feeding.

The blind patient presents special problems. If the mentation is low grade, pica is common. Anything small enough will be grasped, if felt, and transported to the mouth. This can result in bezoars of spectacular proportions. One memorable case had 25 pounds of washcloths, pajamas, spoons, plastic toys, metal buttons, paper, and other unidentifiable objects in his stomach. He did well following gastrotomy, but was readmitted ten years later with intestinal perforation from the sharp edge of a deplasticized rectal examining glove -one of several along with other objects in his jejunum, ileum, and cecum. Everything loose within reach must be removed-and this includes rectal thermometers, bars of soap, gloves, and so on. We have observed the ingestion of surgical dressings on occasion. Some form of restraint occasionally is necessary. Some of these patients require continuous monitoring by an aide or relative.

In general, these patients have poor tissue turgor and fascial strength. Hernias are common. Postoperative wound disruption is more frequent, but wound infection rates seem average. Nutritional status varies widely from the gross obesity of the determined and compulsive eater who steals food from other patients, to deficiency states with low serum proteins and anemia. These latter patients may have total anorexia and must be handfed. Deficiency states should be corrected before any surgery or anesthesia if a normal operative course and postoperative wound healing are desired.

FREQUENTLY OBSERVED PROBLEMS

About one-half of the patients seen by the internist in consultation exhibit side effects from medication. These include the following:

- 1. Anemia—phenytoin has specific antifolate activity and may produce macrocytic hyperchromic anemia resembling pernicious anemia. Folic acid, one mg twice a day, is an adequate therapeutic replacement. Bone marrow depression also has been reported.
- 2. Ataxia and disorientation suggesting organic brain disease.
- 3. Low voltage EKGs simulating hypothyroidism.
- 4. Abnormal liver chemistries, such as an elevated alkaline phosphatase, seen in patients on phenytoin and phenothiazines. This may be associated with vitamin D deficiency, perhaps the cause of the commonly observed osteoporosis. Diabetes is no more frequent in this patient group than in the general hospital population.

A systems review type of organization will be used to describe the more frequently seen problems.

ENDOCRINE PROBLEMS

Trauma—Trauma due to vertigo from medication, developmental and neurological abnormalities, seizures, or occasional minor fights between patients occurs daily. The resultant trauma may take many forms.

Scars about the face and scalp from repeated lacerations and accentuated supraorbital ridges from periosteal new bone formation are common. Chronic subcutaneous masses resembling cysts may result from recurrent hematomas. These usually need no treatment. Subgaleal hematoma may or may not be associated with otherwise asymptomatic skull fracture. Skull x-rays, taken for other pathology, have shown

an une seted shattered calvarium. Many older patients have soporosis and the kyphosis of vertebral body college extremity fractures occur and are managed by ordic surgeons as with other patients. Some patients are ad bangers' and must wear protective headgear to mimize injury. The helmets (of soft leather or plastic) worn by bicyclists or ice hockey players are usually sufficient.

An occasional burn is seen from seizures occurring near radiators or hot water. Epileptic patients always should be monitored while in a bath or shower because of the real possibility of injury following seizures and a subsequent unconscious period. Inadvertent turning of the hot water control to the "Full On" position while falling can result in extensive burns. Severe lacerations have been seen from falls in glass enclosures. Drowning has been reported. These patients should be seated in not more than 7.5 cm of water and attended during bathing for maximum safety.

Abdominal blunt trauma may produce pancreatitis and pancreatic cyst formation.

Infection—Boils and carbuncles are seen with the same frequency in private practice. Hepatitis often is endemic in such institutions. We have seen infections due to Shigella probably introduced from the outside by patients on family furlough. Amoebiasis, including two patients with rectal amoebomas resembling fungating carcinoma, has been observed. Biopsy and appropriate treatment had the desired result.

Contractures and Decubiti—Many patients have been in bed all their lives or have ambulation problems. Severe contractures from the fetal position, from brain injury with hemiplegia, or from a wide range of congenital anomalies of the extremities are frequent. Large decubitus ulcers do occur in spite of active preventive management of the bedridden debilitated patient. Recently, we have been managing these with correction of anemia and improved nutrition, plus myocutaneous flaps by the plastic surgical service. It is extremely important for nurses and housestaff to note location, size, and appearance of these lesions on the chart on admission to the general hospital. Failure to do so may result in accusations of neglect and even lawsuits.

Skin—Some skin lesions are associated with recognized syndromes, such as neurofibromatosis and the adenoma sebaceum of tuberous sclerosis. Severe seborrheic dermatitis is common. Neurodermatitis and eczema have the usual distribution of other patient groups. Scabies and other infestations are rare, fortuitious, and always introduced from the outside. Occasionally ringworm is seen and is a minor problem in contagion. Sebaceous cysts and lipomas are removed for the usual indications. Skin carcinomas and precancerous lesions are common in older patients and are treated by surgical excision and radiation therapy as indicated.

Head and Neck—Dental problems are universal with patients on phenytoin. Advanced gingival hypertrophy and caries keep a dentist and an oral surgeon quite busy. Endotracheal intubation for anesthesia must be done carefuly so that the laryngoscope does not produce injury. Endentulous patients need no prosthetics since the usual diet is soft.

Few patients are literate, so eyeglasses are infrequently worn. When they are prescribed, they are usually sturdy because of the danger of breakage. Blindness of all types is seen. The ambulant blind patient usually is well adjusted to the familiar surroundings of his home institution but he becomes anxious on transfer; this may result in disturbed and combative behavior that demands a greater need for extra

and responsible nursing care.

Lungs—Vomiting and aspiration during seizures may result in pneumonia. Chronic pulmonary fibrosis often is seen with marginal pulmonary reserve. Careful screening at the institution detects a rare case of pulmonary tuberculosis early, and it is treated promptly. Carcinoma is seen occasionally and usually is discovered in advanced form. Lung abscess following aspiration pneumonia is seen occasionally. Lobar and bronchopneumonia are fairly common and respond to the usual measures. Pneumonia often presents as abdominal pain and its diagnosis is made by the surgeon. In the past, patients frequently were addicted to tobacco. Smoking was used as a pacifier. With more understanding of the relationship between tobacco and pulmonary and cardiovascular disease this practice is becoming less frequent.

Breast—Fibrocystic breast disease is quite common and usually is followed carefully in the clinic. An occasional breast carcinoma is seen and is managed as with other patients. Breast hematomas from blunt trauma also have been observed.

Gastrointestinal—Vomiting from any cause has resulted in occasional massive gastrointestinal hemorrhage from Mallory-Weiss tear. Endoscopy is diagnostic. Treatment usually is conservative. Duodenal ulcer is also an occasional cause of hemorrhage. Following the introduction of cimetidine, most ulcers have yielded to good medical managment.

Foreign body perforation and bezoar formation have been mentioned above.

With a low level of physical activity from disability and medication, plus a low residue diet, constipation almost is universal. Many of the patients have massive acquired megacolon which often results in recurrent obstruction from sigmoid volvulus. Usually this is relieved temporarily by high colonic irrigation with saline. Tap water must not be used because of a real danger of water intoxication. "Fleets" or soapsuds enemas are futile because of their limited volume. Frequently sigmoidectomy is necessary to control obstruction from this cause. Hemorrhoids are common. An occasional patient has rectal prolapse, sometimes over 25 cm in length. These are always reducible. We have used the Thiersch wiring procedure for control. An occasional rectal or colon carcinoma is seen and yields to good surgical management.

Chronic rectal ulcer has been observed following recurrent trauma from homosexual rectal intercourse.

Biliary—Gallstones are frequent. Some nonverbal patients refuse to eat because of postprandial pain. Anorexia and vomiting should be investigated by cholecystography.

Hernia—Many inguinal hernias are recognized and treated surgically.

Genitourinary—Benign prostatic hypertrophy is fairly common. Uncooperative patients are difficult to treat because they remove catheters and drains soon after introduction. Suprapubic tubes cannot be used for this reason. Restraint and careful observation may be necessary, sometimes by a "constant relief" nursing system.

We have seen large bladder calculi and occasional carcinomas. Genitourinary anomalies are rare. Cystitis and upper urinary tract infections are common, primarily due to recumbency and a sedentary life.

Vascular—Developmental abnormalities, ambulation problems, and anticonvulsant medications keep many patients in a chair most of the day. Hypostatic leg edema often is observed and varicose veins are common. Ulceration may

occur on this basis. Unna boots have been helpful in management. Phlebectomy occasionally is necessary. Chronic ulcers also have been seen, which on biopsy were skin carcinoma. If in doubt, biopsy and culture always should be done before treatment is started. Peripheral arterial occlusion also is seen, but rarely recognized before tissue necrosis has occurred. Amputation, of course, then is mandatory. Vascular reconstruction rarely is indicated.

Few myocardial infarctions occur.

From the foregoing, one can understand that these patients present a fascinating spectrum of disease states, many of which are uncommon in ordinary private practice. An understanding of their special needs and problems can enhance our ability to render them the highest grade of medical care and contribute to a rewarding professional relationship.

SUMMARY

Approximately 60 inpatients per year are transferred a general medical center from a state institution for the developmentally disabled. Most of the these patients are severely handicapped and also have a "seizure disorder." The spectrum of disease states and the requirements for care mandate a body of special knowledge and understanding on the part of nurses and physicians.

Help for Impaired Physicians We need YOU to tell us about an impaired colleague!

Experience clearly shows that victims of chemical abuse and most psychiatric impairments are not capable of perceiving their behavior realistically. Therefore, they are incapable of reaching out by themselves for the help needed to avoid irreversible damage to themselves and others, and to take the first step toward rehabilitation.

The Impaired Physician Committee of MSNJ is a group of physicians, many of whom have recovered from substance abuse and addiction, who approach impaired physicians with advocacy and experience.

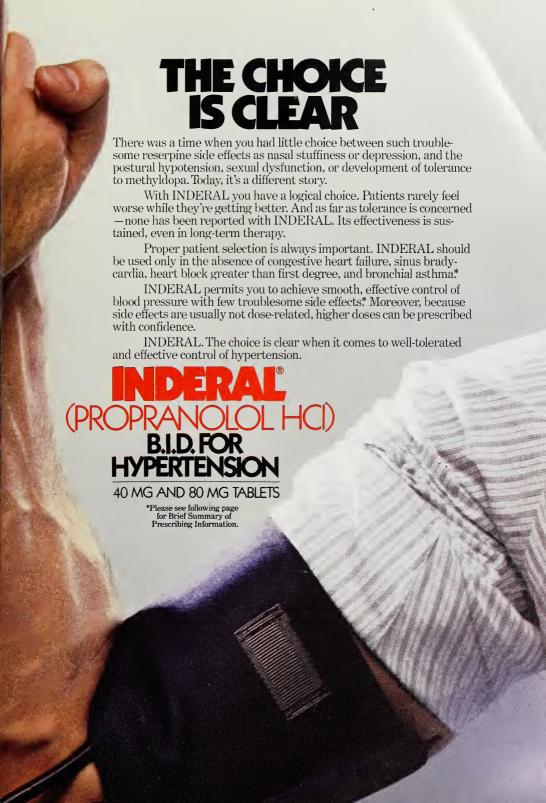
We know that you, personally, do not know what to do with these colleagues. We do! But we have to know who they are. The earlier the problem is recognized and attacked, the easier it is to solve.

It is normal human behavior to ignore problems that appear insoluble. Unfortunately, the psychopathy of substance abuse and addiction always gets worse while it is ignored.

TRUST US! We can help in the majority of cases. Your anonymity is guaranteed. Call (609) 896-1884—only specially trained personnel will handle your call.

Help us to help our impaired colleagues.





THE MOST WIDELY PRESCRIBED BETA BLOCKER IN THE WORLD

NDERAL (PROPRANOLOL HCI) B.I.D. FOR HYPERTENSION

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR) Inderal® BRAND OF propranolol hydrochloride A beta-adrenergic blocking agent

BEFORE USING INDERAL (PROPRANOLOL HYDROCHLORIDE), THE PHYSICIAN SHOULD BE THOROUGHLY FAMILIAR WITH THE BASIC CONCEPT OF ADRENERGIC RECEPTORS (ALPHA AND BETA), AND THE PHARMACOLOGY OF THIS DRUG

CONTRAINDICATIONS

INDERAL is contraindicated in 1) bronchial asthma, 2) allergic rhinitis during the pollen season; 3) sinus bradycardia and greater than first degree block; 4) cardiogenic shock, 5) right ventricular failure secondary to pulmonary hypertension, 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL; 7) in patients on adrenergic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs.

WARNINGS

CARDIAC FAILURE: Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta-blockade always carries the potential hazard of further depressing myocardial contractility and precipitating cardiac fail ure. INDERAL acts selectively without abolishing the inotropic action of digitalis on the heart muscle (i e , that of supporting the strength of myocardial contractions). In patients already receiving digitalis, the positive inotropic action of digitalis may be reduced by INDERAL's negative inotropic effect. The effects of INDERAL and digitalis are additive in depressing AV

IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure. In rare instances, this has been observed during INDERAL therapy. Therefore, at the first sign of symptom of impending cardiac failure, patients should be fully digitalized and/or given a diuretic, and the response observed closely; a) if cardiac failure continues, despite adequate digitalization and diuretic therapy, INDERAL therapy should be immediately with drawn, b) if tachyarrhythmia is being controlled, patients should be maintained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when INDERAL is prescribed for angina pectoris, the patient should be cautioned against nterruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute. INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given propranolol for other indications

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long term use have not been adequately appraised. Special consideration should be given to propranolol's potential for aggravating congestive heart failure Propranolol may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing propranolol slowly. Propranolol does not distort thyroid function

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg

IN PATIENTS DURING ANESTHESIA with agents that require catecholamine release for maintenance of adequate cardiac function, beta blockade will impair the desired inotropic effect. Therefore, INDERAL should be titrated carefully when administered for arrhythmias occurring during anesthesia

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of pheochromocytoma, INDERAL should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emergency surgery, since INDERAL is a competitive inhibitor of beta receptor agonists, its effects gency surgers, interinded had as a competitive infliction of beta feeding agonists, its effects can be reversed by administration of such agents, e.g., isoproterenol or levarterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has also been reported
IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-

CHITIS, EMPHYSEMA), INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its betaadrenergic blocking activity. INDERAL may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially important to keep in mind in patients with labile diabetes. Hypoglycemic attacks may be ac-

companied by a precipitous elevation of blood pressure
USE IN PREGNANCY: The safe use of INDERAL in human pregnancy has not been established. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or fetus be weighed against the expected therapeutic benefit.

Embryotoxic effects have been seen in animal studies at doses about 10 times the maximum recommended human dose

PRECAUTIONS Patients receiving catecholamine depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharmacologic activity of INDERAL may produce hypotension and/or marked bradycardia resulting in vertigo, syncopal attacks, or orthostatic hypotension.

As with any new drug given over prolonged periods, laboratory parameters should be ob-served at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function.

ADVERSE REACTIONS

Cardiovascular bradycardia; congestive heart failure, intensification of AV block; hypotension, paresthesia of hands, arterial insufficiency, usually of the Raynaud type; thrombocytopenic purpura

Central Nervous System, lightheadedness: mental depression manifested by insomnia lassitude, weakness, fatigue, reversible mental depression progressing to catatonia; visual disturbances, hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics

Gastrointestinal nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis

Allergic: pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress

Respiratory bronchospasm Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura Miscellaneous reversible alopecia. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been conclusively associated with propranolol

Clinical Laboratory Test Findings. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase

DOSAGE AND ADMINISTRATION

HYPERTENSION—Dosage must be individualized. The usual initial dosage is 40 mg INDERAL twice daily, whether used alone or added to a diuretic Dosage may be increased gradually until adequate blood pressure is achieved. The usual dosage is 160 to 480 mg per day. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several

While twice-daily dosing is effective and can maintain a reduction in blood pressure throughout the day, some patients, especially when lower doses are used, may experience a modest rise in blood pressure toward the end of the 12 hour dosing interval. This can be evaluated by measuring blood pressure near the end of the dosing interval to determine whether satisfactory control is being maintained throughout the day. If control is not adequate, a larger dose, or 3 times daily therapy may achieve better control

PEDIATRIC DOSAGE

At this time the data on the use of the drug in this age group are too limited to permit ade quate directions for use

INTRAVENOUS

The intravenous administration of INDERAL has not been evaluated adequately in the management of hypertensive emergencies

OVERDOSAGE OR EXAGGERATED RESPONSE IN THE EVENT OF OVERDOSAGE OR EXAGGERATED RESPONSE, THE FOLLOWING

MEASURES SHOULD BE EMPLOYED:

BRADYCARDIA—ADMINISTER ATROPINE (0.25 to 1.0 mg). IF THERE IS NO RE-SPONSE TO VAGAL BLOCKADE, ADMINISTER ISOPROTERENOL CAUTIOUSLY. CARDIAC FAILURE—DIGITALIZATION AND DIURETICS

HYPOTENSION—VASOPRESSORS, e.g., LEVARTERENOL OR EPINEPHRINE (THERE IS EVIDENCE THAT EPINEPHRINE IS THE DRUG OF CHOICE). BRONCHOSPASM--ADMINISTER ISOPROTERENOL AND AMINOPHYLLINE.

HOW SUPPLIED

INDERAL (propranolol hydrochloride)

No. 461—Each scored tablet contains 10 mg of propranolol hydrochloride, in bottles of 100 and 1,000. Also in unit dose package of 100

No. 462—Each scored tablet contains 20 mg of propranolol hydrochloride, in bottles of 100 and 1,000 Also in unit dose package of 100. No 464—Each scored tablet contains 40 mg of propranolol hydrochloride, in bottles of 100

and 1,000 Also in unit dose package of 100 No. 468—Each scored tablet contains 80 mg of propranolol hydrochloride, in bottles of 100

and 1,000. Also in unit dose package of 100

INJECTABLE

No. 3265—Each milicontains 1 mg of propranolol hydrochloride in Water for Injection. The pH is adjusted with citric acid. Supplied as, 1 ml ampuls in boxes of 10

7526/581



STATE OF THE ART

The Present Management of Diabetic Retinopathy

ROBERT A. BRAUNSTEIN, M.D., and ALFONSE A. CINOTTI, M.D., Newark*

Diabetic retinopathy, a major cause of blindness, may be classified into the background and the proliferative stages. Microaneurysms and hard exudates characterize the background stage. Neovascularization, frequently beginning on the optic disc, heralds the proliferative phase. Photocoagulation significantly reduces the incidence of blindness associated with this stage. Periodic eye examinations are necessary for the diabetic.

iabetic retinopathy is the leading cause of new blindness among those aged 20 to 74. Approximately 2 percent of all diabetics are legally blind from retinopathy. Last year, the New Jersey State Commission for the Blind and Visually Impaired reported that legally blind diabetics constituted 75 percent of their vocational rehabilitation population.

Although diabetic retinopathy first was described by von Jaeger in 1856, prior to the discovery of insulin by Banting and Best in 1922, patients rarely lived long enough to develop severe retinal changes.³ In 1930, less than 1 percent of newly reported cases of legal blindness in the United States were due to diabetes. By 1960, the figure had risen to 15 percent.⁴ and by 1973 to 20 percent.¹

Improved health care with early diagnosis and treatment has led to the increased longevity of the diabetic population. Previously unrecognized retinal changes now are classified and treated better. After 10 to 15 years of diabetes, a patient has approximately a 50 percent chance of developing retinopathy. The increase in the absolute numbers of patients with diabetic retinopathy has led to the increase in diabetic blindness. Thus, diabetic retinopathy has become a major clinical problem with associated social, psychological, and economic implications.

BACKGROUND DIABETIC RETINOPATHY

Diabetic retinopathy is subdivided into the background

and proliferative phases. The background or nonproliferative stage is manifested by retinal capillary microaneurysms, increased vascular permeability, and vascular occlusions. Microaneurysms are among the earliest changes (Figure 1). These aneurysms are rounded in contour. Their color of blood varies from the dark shade of veins to the pale pink of arterial blood. They are accompanied by hemorrhages which are darker, more irregular and transient than aneurysms. The permeability abnormalities represent a breakdown of the "blood retinal" barrier at the level of the retinal vascular endothelium. The development of these leaky vessels accounts for the formation of hard exudates and edema within the retina (Figure 2). Macular edema usually causes an impairment of visual acuity and accounts for the symptoms of blurriness and distortion. Ischemic changes resulting from occlusion of small and large retinal vessels can be recognized by venous beading, white threadlike arterioles, and nerve fiber bundle infarcts, the so-called "cotton wool" spots or soft exudates (Figure 3). Microvascular abnormalities may result in "capillary drop-out" and resultant tissue hypoxia. Retinal ischemia may cause a

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Figure 1—Microaneurysms with "dot and blot" intraretinal hemorrhages.

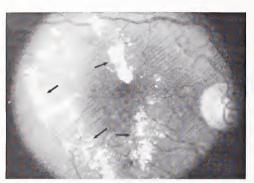


Figure 2—Hard exudates in a circinate pattern surrounding intraretinal (macular) edema.

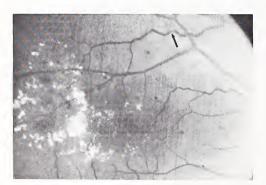


Figure 3—Microaneurysms, intraretinal hemorrhages, circinate exudation, macular edema. Note irregularity of vessel wall (see arrow).

loss of visual acuity and, more importantly, may stimulate neovascular proliferation.

PROLIFERATIVE DIABETIC RETINOPATHY

The proliferative phase of diabetic retinopathy is the most ominous. These changes are the response to an inadequate retinal circulation. Frequently, neovascularization begins on the optic disc, though it may occur elsewhere (Figure 4).

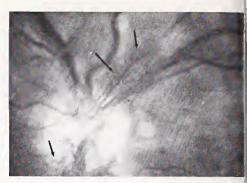


Figure 4—Retinal neovascularization emanating from optic disc

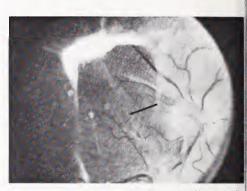


Figure 5—Fibrovascular tissue causing traction. Note wrinklin and traction lines of normally smooth retinal surface.

These vessels remain flat on the retina until pulled forwar by contracting vitreous. Vitreoretinal traction can produc the most severe degrees of visual loss with the most devas tating complications. Fibrovascular tissue may cause trac tion on the retina resulting in retinal detachment. Prolifera tion of the glial elements on the retinal surface may cause wrinkling of the normally smooth retinal surface (Figure 5

Vitreous hemorrhage, one of the most common causes c severe loss of vision, usually is the result of tractional force on abnormal neovascular proliferation. However, bleedin may occur from the thin-walled neovascular complexe without evidence of traction. When this occurs the patien visually may experience floating spots or a smoke-like vei Profound and sudden visual loss also may occur Ophthalmoscopy reveals a dark red reflex with the absenc of retinal detail. The vitreous hemorrhage frequently re absorbs over a period of months, unless bleeding reoccurs

PHOTOCOAGULATION

In 1959, Meyer Schwickerath introduced xenon ar photocoagulation for the treatment of diabetic retinopathy. The argon laser is utilized most widely today because c improvements in the delivery system and its greater applicability for other retinal conditions. Photocoagulation is process by which areas of the diseased retina are scarre (Figure 6). Destruction of retina reduces retinal requirement for oxygen, thus altering the ischemic stimulus that i

"Photocoagulation reduced the incidence of blindness in patients with moderate to severe proliferative diabetic retinopathy by one-half to two-thirds."

"The primary goals of vitrectomy surgery in diabetes are to remove vitreous opacities and to release vitreoretinal traction."

ecessary for the development of retinal neovascularization Figure 7). Fragile abnormal blood vessels may be treated ocally, lessening the risk of hemorrhage and progression to he more severe stages.

The efficacy of photocoagulation for proliferative diabetic etinopathy was established by the multi-center Diabetic Retinopathy Study, supported by the National Eye Intitute. In this study 1,742 patients classified within various ubgroups had one eye randomly assigned to photocoagulaion; the other eye had no treatment. A preliminary report of he findings in 1976 concluded that the benefits from treatment outweighed the risks. The study protocol then was modified to encourage treatment of the eyes originally assigned to no treatment. Treatment substantially reduced he incidence of severe visual loss in all subgroups, though he effects were most significant in the "high-risk" subgroups. Photocoagulation reduced the incidence of blindness n patients with moderate to severe proliferative diabetic retinopathy by one-half to two-thirds.

There are unanswered questions concerning the most effective time to start treatment. If treatment is begun at a relatively early time, perhaps fewer laser applications will be necessary and patients might experience fewer side effects. It is not known whether photocoagulation is effective in treating macular edema, a major cause of visual disability resulting from diabetic retinopathy. Is aspirin effective in altering the course of diabetic retinopathy? Since it has been demonstrated that the blood platelets of diabetic patients tend to aggregate, 10 perhaps low-dose aspirin might help to keep the retinal capillaries open.

Presently, the National Eye Institute is sponsoring a multicenter trial, the Early Treatment Diabetic Retinopathy Study (ETDRS), investigating the effects of aspirin and timing of argon laser photocoagulation.

VITRECTOMY

Since the development of vitreous instrumentation by Machemer in 1971, eyes previously thought to be inoperably blind have been rehabilitated successfully. The primary goals of vitrectomy surgery in diabetes are to remove vitreous opacities and to release vitreoretinal traction. This is accomplished by inserting instruments into the eye that can illuminate, cut, and suction hemorrhage and fibrovascular membranes (Figure 8).

Most eye centers reporting results of vitrectomies in diabetic eyes show visual improvement in approximately 50 percent of the cases. ^{12,13,14} The relatively low rate of improvement may be the result of preexisting retinal damage that is preoperatively difficult to assess. Also, the complication rate, about 25 percent, is high, therefore much vitreous surgery is delayed. ^{12,13,14} Complications include iatrogenic retinal tears

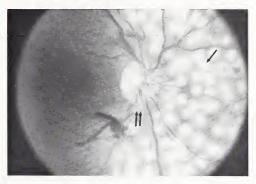
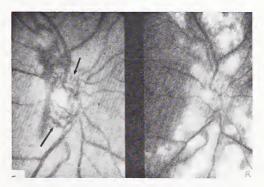


Figure 6—Photocoagulation scars in a partial panretinal configuration. Note spider-like retinal neovascularization on the optic disc surface with superficial hemorrhage overlying retinal vessels (double arrows).



 $\begin{tabular}{ll} Figure 7--(L) & Retinal neovascularization and hemorrhage overlying optic disc. (R) & Regression following panretinal photocoagulation. Note white scars. \end{tabular}$

and cataract changes, persistent bleeding, persistent corneal edema, infection, and neovascular glaucoma (a very difficult type of glaucoma to treat). Persistent hypotony and subsequent loss of the eye may occur in 2 to 5 percent of operated eyes. 15 Pituitary ablation chiefly has been replaced by photocoagulation and vitrectomy for severe proliferative diabetic retinopathy.

THE RELATIONSHIP OF DIABETIC CONTROL TO THE DEVELOPMENT OF RETINOPATHY

Experimental as well as clinical studies seem to indicate



Figure 8—Vitrectomy instruments removing vitreous from within eye: 0-Vitrector, simultaneous cutting and aspiration; E-Fiberoptic light source; I-Infusion line to replace vitreous with balanced salt or Ringer's lactate solution.

that strict metabolic control plays a role in affecting early development of background retinopathy.^{16,17} Tight control, using multiple daily injections of insulin, can reverse the earliest vascular abnormalities.¹⁸ A case of reversal of florid retinopathy with the use of a portable insulin pump has been reported.¹⁹

There is some evidence that heavy smoking reduces the retinal oxygen supply and hastens the development of proliferative retinopathy. However, tight regulation of diabetes generally has no effect on advanced background or proliferative retinopathy. Hypertension appears to delay the resolution of macular edema and may be a contributing factor to its presence.

One thing is certain, good control does not increase the risk of retinopathy, but poor control may increase the risk.

DIABETIC RETINOPATHY AND PREGNANCY

A study of the natural history of background and proliferative diabetic retinopathy during pregnancy, as well as its response to argon laser photocoagulation, was undertaken by Joslin Clinic and Case Western University.²¹ Eighty-five percent progressed to a more severe stage of background disease during pregnancy; however, 70 percent regressed to less background disease postpartum. Recommendations that emerged from this study were:

- 1. Prior to pregnancy, a retinal examination is indicated.
- If proliferative retinopathy is seen prior to pregnancy, laser treatment is indicated until the condition becomes quiescent.
- 3. If proliferative retinopathy is seen during pregnancy, laser therapy is indicated to minimize the risk of severe visual loss. Therapeutic abortion is restricted to women with progressive proliferation despite treatment.
- 4. Pregnancy does not impair the effectiveness of laser treatment in high-risk patients.
- 5. Photocoagulation has no effect on the fetus or its gestation.

THE ROLE OF THE GENERAL PHYSICIAN

The physician caring for the diabetic can screen visual acuity and examine the optic nerve and macula. This should not be a substitute for periodic eye examinations by an ophthalmologist. The early and occasionally the more advanced stages of the disease may be visually asymptomatic.

Juvenile onset diabetics without ocular symptoms should have an ophthalmic examination within three to five years of the onset of their disease. Adult onset diabetics should have an eye examination one to three months after their diabetes therapy has been stabilized. Consultation with an ophthalmologist is imperative if visual symptoms occur. In patients without retinopathy, periodic eye examinations should be performed yearly. If retinopathy is present, more frequent examinations may be necessary.

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*Hannemann, R. E., Erb, R. J., Stoltman, W. P., Bronson, E. C., Williams, E. J., Long, R. A., Hull, J. H. and Starbuck, R. R.: Digital Plethysmography For Assessing Erythrityl Tetranitrate Bioavailability. Clin Pharmacol and Ther 29:35-39, 1981.

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TRAINDICATIONS: Idiosyncrasy to this drug

NING: Data supporting the use of nitrates during the early days of the acute phase of myocardial ction (the period during which clinical and laboratory findings are unstable) are insufficient to Jish Sately.

CAUTIONS: Intraocular pressure is increased therefore caution is required in administering to

ERSE REACTIONS: Cutaneous vasodilation with flushing. Headache is common and may be severe persistent. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia cated with posurual phyodension, may occasionably develop. This drug can act as a physiological gonist to norepinephine, acetylcholine, histamine and many other agents. An occasional individ-

ual exhibits marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness. restlessness, pallor, perspiration and collapse) can occur even with the usual therapeutic dose. Alcohol may enhance this effect. Drug rash and or exhibitative dermatitis may occa-

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CASE REPORTS

Arachnoid Cyst Associated with Psychological Disturbance*

STEPHEN COLAMECO, M.D., and ROBERT A. DiTOMASSO, Ph.D., Voorhees

This report describes a 17-year-old male who experienced increasing emotional lability. A computerized tomography (CT) scan was compatible with subtemporal cyst. The patient's condition improved after removal of the cyst. Clinical implications are discussed.

upratentorial, extracerebral cysts are common abnormalities that may be of congenital, inflammatory, or traumatic origin. They are referred to as arachnoid cysts although they may be indistinguishable from other benign cysts described as hygromas or as leptomeningeal cysts. 1.2 The most common presenting complaints in children are head enlargement, delayed development, visual impairment, and seizures 2.3 Arachnoid cysts rarely are encountered in adults; isolated cases have presented with headaches, seizures, proptosis, and weakness. 3.4.5

In our case, the patient experienced increasing emotional lability. Although a psychological disorder was considered most likely at the time of initial evaluation, his symptoms proved, at least in part, to be due to an arachnoid cyst.

CASE REPORT

A 17-year-old male was referred for a medical evaluation of emotional difficulties for which he was about to begin psychotherapy. Over a three-year period the patient had increasing emotional lability characterized by frequent outbursts of anger over seemingly trivial occurrences. Occasionally he experienced a sense of unreality which he described as a "natural high." Systemic review revealed that he had occasional headaches that he considered to be minor in nature. Physical examination was entirely within normal limits. A laboratory evaluation included an unremarkable complete blood count, urinalysis, and a SMA-20 biochemical

profile. Electroencephalogram with nasopharyngeal leads, skull x-ray, and radionuclide brain scan were normal. A computerized tomography (CT) scan showed a well-circumscribed area of decreased density deep in the right temporal area; the anterior horn of the right lateral ventricle was narrowed indicating a mass effect (Figure 1).

At craniotomy, a right subtemporal cyst was excised. Microscopic evaluation demonstrated arachnoid tissue with focal thickening compatible with an arachnoid cyst. In the weeks following the procedure, the patient experienced gradual improvement in his symptomatology. He became less labile emotionally and no longer experienced his "natural high."

DISCUSSION

The most noteworthy aspects of this case were the patient's unusual initial symptomatology and the diagnostic usefulness of CT scanning. There has not been, at least to our knowledge, a previously-described case of an arachnoid cyst exhibiting as an emotional or behavioral problem. This case demonstrates the importance of CT scanning in the recognition of intracranial lesions. It is quite probable, that without a CT scan, an inaccurate diagnosis would have been

^{*}This report is from the West Jersey Hospital System Family Practice Residency Program, where Drs. Colameco and DiTomasso are on the staff. Correspondence can be addressed to Dr. Colameco at the Residency Program, West Jersey Hospital System, Evesham Avenue, Voorhees, NJ 08043.

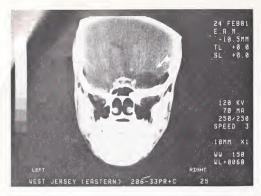


Figure 1-CT scan showing the area of decreased density.

made since other noninvasive studies were interpreted as normal. Although the authors do not recommend extensive medical evaluations of all patients with behavioral disturbances, there are a number of situations in which such evaluations are indicated. First, there are those cases in which there are associated neurological complaints or an abnormal neurological examination. Second, there are those instances in which patients evidence abrupt changes in their personalities. Unexplained change in behavior may result from intoxication, cerebritis, hemorrhage, or infection. Finally, a medical evaluation is indicated in those cases where a psychological assessment yields contradictory or clinically unusual information such as a lack of correlation between a patient's behavior and psychological information that has been gathered. In this case, the patient's mood and behavior could not be explained adequately from a psychological standpoint.

SUMMARY

A 17-year-old male complained of uncontrollable outbursts of anger over seemingly trivial occurrences. Radio-nuclide brain scan, EEG, and skull x-ray were interpreted as normal, but a CT scan demonstrated a cystic temporal lobe lesion. The patient's symptoms subsequently improved. This case demonstrates the need for thorough medical evaluation in selected patients with psychological complaints.

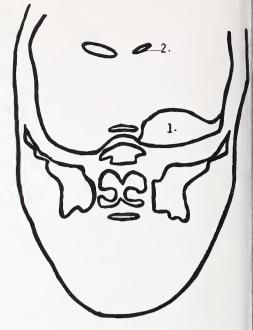


Figure 2—Diagrammatic representation of the CT scan demonstrating the arachnoid cyst (1) and the lateral ventricle (2).

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DESCRIPTION: PROCARDIA (nifedipine) is an antianginal drug belonging to a new class of pharmacological agents, the calcium channel blockers. Nifedipine is 3.5-pyridinelicarboxylic add, 1,4-dhylo-2,6-dimethyl-4-(2-nitrophenyl), dimethyl ester, (2)₁-H₁-N₂O₆, and has the struc-

Nifedipine is a yellow crystalline substance, practically insoluble in water but soluble in ethanol. It has a molecular weight of 346.3. PROCARDIA CAPSULES are formulated as soft gelatin capsules for oral administration each containing 10 mg nifedipine. CLINICAL PHARMACOLOGY: PROCARDIA (nifedipine) is a calcium ion influx inhibitor (slow charnel blocker or calcium ion antagonist) and inhibits the transmembrane influx of calcium ions into cardiac muscle and smooth muscle. The contractile processes of cardiac muscle and vascular smooth muscle are dependently processed of cardiac muscle and vascular smooth muscle are dependently processed in the cardiac muscle and vascular smooth muscle are dependently processed in the cardiac muscle and vascular smooth muscle without changing serum calcium concentrations. concentrations

cell membrane of cardiac muscle and vascular smooth muscle without changing serum calcium concentrations. Mechanism of Action: The precise means by which this inhibition relieves angina has not been fully determined, but includes at least the following two mechanisms:

1) Relaxation and prevention of coronary artery spasm: PROCARDIA dilates the main coronary arteries and coronary arterioles, both in normal and ischemic tegions, and is a potent inhibition of the properties of

on excretion or metapolism of PHOLAHDIA. Hemodynamics: Like other slow channel blockers, PROCARDIA exerts a negative inotropic effect on isolated myocardial tissue. This is rarely, if ever, seen in intact animals or man, probably because of reflex responses to its vasodilating effects. In man, PROCARDIA causes decreased peripheral vascular resistance and a fall in systolic and diastolic pressure, usually modest (5–10 mm Hg systolic), but sometimes larger. There is usually a small increase in heart rate, a reflex re-sponse to vasodilation. Measurements of cardiact function in patients with normal ventricular funcsporise to vasconation, weasorements or cardiac unfactor in patients with normal vehicituals unif-tion have generally found a small increase in cardiac index without major effects on ejection fraction, left ventricular end diastolic pressure (LVEDP) or volume (LVEDV). In patients with paired ventricular function, most acute studies have shown some increase in ejection fraction and

paired ventricular function, most acute studies have shown some increase in ejection fraction and reduction in left ventricular filling pressure.

Electrophysiologic Effects: Although, like other members of its class, PROCARDIA de-creases sincatrial node function and atrioventricular conduction in isolated myocardial prepara-tions, such effects have not been seen in studies in intact animals or in man. In formal electrophysiologic studies, predominantly in patients with normal conduction systems, PROCARDIA has had no tendency to prolong atrioventricular conduction, prolong sinus node re-

PROCÁTÓIA hás had no tendency to prolong atrioventricular conduction, prolong sinus node recovery time, or slow sinus rate.

INDICATIONS AND USAGE: I. Vasospastic Angina: PROCARDIA (nifedipine) is indicated for
the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm,
provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm, in those
patients who have had angiography, the presence of significant fixed obstructive disease is not incompable with the diagnosis of vasospastic angina, provided that the above criteria are satisfied.

Component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where decrotocardiographic findings are compabile with
termittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta
blockers.

DIOCHERS.

II. Chronic Stable Angina (Classical Effort-Associated Angina): PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in con-

trolled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta-blocking agents may be beneficial in patients with chronic stable angina, but available inflormation is not sufficient to predict with confidence the effects of concurrent treatment, especially in

mation is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When in-introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severel hypotension can occur from the combined effects of the drugs. (See Warnings.) CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA. WARNINGS: Excessive Hypotension: Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly loterated hypotension. These responses have usually occurred during initial traitor or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

of subsequient upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.
Increased Angina/Beta Blocker Withdrawal: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCAFDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.
Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines, initiation of possible and the proposal present this course and might be expected to exacerbate it by provoking reflex catecholamine present his occurrence and might be expected to exacerbate it by provoking reflex catecholamines and PROCAFDIA initiation. It is provided in the proposal proposal proposal present his provided provided in the provided proposal proposal proposal proposal provided provid

diuretic therapy. With patients whose angina is complicated by congestive heart failure, should be taken to differentiate this peripheral edema from the effects of increasing left ventral contents. Should be taken to differentiate this peripheral edenta from the effects of increasing left ventri dysfunction.

Drug interactions: Beta-adrenergic blocking agents: See Indications and Warnings, Expen

in over 1400 patients in a non-comparative clinical trial has shown that concomitant administs of PROCAFDIA and beta-blocking agents is usually well tolerated, but there have been in since the procase of PROCAFDIA and beta-blocking agents is usually well tolerated, but there have been in sional literature reports suggesting that the combination may increase the likelihood of conge

on PMCARDIA and o beta-dioxing agents is usually well tolerated, but there have been is sonal literature reports suggesting that the combination may increase the likelihood of congeneral failure, severe it hypotension or exacerbation of angina. Long-acting intrates, PMCARDIA may be safely co-administered with nitrates, but there been no controlled studies to evaluate the antianginal effectiveness of this combination of the control of the controlled studies to evaluate the antianginal effectiveness of this combinate of the controlled studies were not failured to the controlled studies were not failured to the controlled studies were not failured to the controlled studies were negative. Pregnancy adequate the controlled studies were negative. Pregnancy Pregnancy category C. Miledipine has been shown to be teratogenic in rats-given in doses 30 times the maximum recommended human dose. Niedipine was embry (increased fetal resorptions, decreased fetal weight, increased studied forms, increased eaths, decreased neonatal survival) in rats, mice and rabbiast at doses of from 3 to 10 time maximum recommended human dose. In pregnant monkeys, doses 2/3 and twice the max recommended human dose resulted in small placents and underdeveloped chorionic values of the controlled studies in pregnant women. PROCARDIA should during pregnancy only if the potential benefit justifies the potential risk to the fetus, and Verses Effect 100 studies in myeling-dose used during pregnancy only if the potential benefit justifies the potential risk to the fetus, and Verses Effect 100 studies in myeling-dose used during pregnancy only if the potential benefit justifies the potential risk to the fetus, and Verses Effect 100 studies in pregnant women. PROCARDIA should be a reactions were reported spontaneously, adverse effects were frequent but generally not se and rarely required discontinuation of therapy or dosage adjustment. Most were expected or quences of the vascodiator effects of PROCARDIA.

PROCARDIA (%) (N = 226) Placebo (%) (N = Adverse Effect Adverse Effect Dizziness, light-headedness, giddiness Flushing, heat sensation Headache 25 23 Weakness Nausea, heartburn 12 8 Muscle cramps, tremor
Peripheral edema
Nervousness, mood changes Palpitation Payment Cough, wheezing 6 8 8 8 8 8 1 There is also a large uncontrolled experience in over 2100 patients in the United States. M

There is also a large uncontrolled experience in over 2100 patients in the United States. M the patients had vasospastic or resistant angina pectoris, and about half had concomitant ment with beta-adrenergic blocking agents. The most common adverse events were the ones seen in the controlled trials, with dizziness or light-headedness, peripheral dedma, nat weakness, headache and flushing each occurring in about 10% of patients, transient hypote in about 05%, syptopal episodes did not in about 5%, papitation in about 25% and syncrope in about 0 5%. Syncopal episodes did not in about 5% papitation in 2004 APID AF OCA APID AF OCA MED to associated hypotension.

Several of these side effects appear to be dose related. Peripheral edema occurred in

one in 25 patients at doses less than 60 mg per day and in about one patient in eight at 120 m day more. Transient hypoterision, generally of mild to moderate severity and seldom req discontinuation of therapy, occurred in one of 50 patients at less than 60 mg per day and in c

one in 25 patients at doses less man to urilip per day and in about one patients missing and advanced and your more. Irraisenthy hyborension, generally of mild to moderate severity and seldom regid discontinuation of therapy, occurred in one of 50 patients at less than 60 mp per day and in c 20 patients at 120 mp per day or more.

In addition, 2% or lewer of patient propried the following: Respiratory: Nasal and Musculos levels and the patients of the service of the

in 150.

Laboratory tests: Rare, mild to moderate, transient elevations of enzymes such as allphosphatase, CK, LDH, SGOT, and SGPT have been noted, and a single incident of signific
elevated transaminases and akaline phosphatase was seen in a patient with a history or
bladder disease after about eleven months of niledipine therapy. The relationsh
PROCARDIA therapy is uncertain. These laboratory abnormalities have already been assoc
with clinical symptoms. Cholestaiss, possibly due to PROCARDIA therapy, has been rep
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with chincal symptoms. Cholestasis, possibly due to PHOCAHDIA therapy, has been rep fuvice in the extensive world literature. Well documented space presence with PPOCARDIA over OVERDOSAGE: Although there is no everdosage could result in excessive peripheral vas it on with subsequent marked and probably prolonaged systemic hypotension. Climically signil hypotension due to PROCARDIA overdosage calls for active cardiovascular support inclimication of the cardiac and respiratory function, elevation of extremities, and attention to circuit fluid volume and urine output. A viasoconstrictor (such as norepinephrine) may be helpful storing vascular tone and blood pressure, provided that there is no contraindication to its Clearance of PROCARDIA would be expected to be prolonged in patients with impaired function. Since PROCARDIA is highly protein-bound, dialysis is not likely to be of benefit. DOSAGE AND ADMINISTRATION: The dosage of PROCARDIA needed to suppresign and that can be tolerated by the patient must be established by thiration. Excert angle is 10–20 mg three times daily. Some patients, especially those with evidence of corr artery spasm, respond only to higher doses, more frequent administration, or both. In suc lents, doses of 20–30 mg three times daily some petients, especially those with evidence of corr artery spasm, respond only to higher doses, more frequent administration, or both. In suc lents, doses of 20–30 mg three times daily may be effective. Doses above 120 mg are rarely necessary, More than 180 mg per day is not recommended. In most cases, PHOCARDIA that also should proceed over a 7–14 day period so that the cian can assess the response to each dose level and monitor the blood pressure before proting to higher doses.

cian can assess the response to each dose lever and informative body.

If symptoms so warrant, litration may proceed more rapidly provided that the patient is sessed frequently Based on the patient's physical activity level, attack frequency, and sublinitroglycerin consumption, the dose of PROCAFDIA may be increased from 10 mg t.i.d. to 2 t.i.d. and then to 30 mg t.i.d. over a three-day period.

In hospitalized patients under close observation, the dose may be increased in 10 mg i mentions to ver four to six-hour periods as required to control pain and arrhythmias due to ischen interest to the process of the proce

ments over four to six-hour periods as required to control pain and arrhythmias due to ischen single dose should rately exceed 30 mg. No "rebound effect" has been observed upon discontinuation of PROCARDIA. However, continuation of PROCARDIA is necessary, sound clinical practice suggests that the do should be decreased gradually with lose physician supervision. Co-Administration with Other Antianginal Drugs: Sublingual nitroglycerin may be tak required for the control of acute manifestations of angina, particularly during PROCARDIA ton. See Precaultons, Drug interactions for information on co-administration of PROCAI with beta blockers or long-acting nitrates.

HOW SUPP LIED: Each crange, soft gleatin PPOCARDIA Capsule contains 10 mg of riled PPOCARDIA Capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are supplied in amber glass bottless of 100 capsules (NDC 0069-2600 PPOCARDIA Capsules are suppl



Chromobacterium Violaceum Septicemia in New Jersey*

JEFFREY MYERS, M.D., DANTE A. RAGASA, M.D., CAMILLUS EISELE, B.A., Mount Holly

Septicemia due to *Chromobacterium violaceum* developed in an 18-year-old victim of a near drowning in New Jersey. The septicemia responded to antibiotic therapy but the patient expired of anoxic brain damage. This is the first case of chromobacteriosis to be documented in a temperate climate zone.

pathogen for man, in which case the illness is severe and frequently fatal.³ It has been assumed that the disease is confined to tropical or semitropical areas, most reported cases having occurred in Southeast Asia or in the southeastern United States.^{1-5,10} We are reporting a case of C. violaceum septicemia from New Jersey.

CASE REPORT

An 18-year-old male was brought to the emergency room after falling from a boat into a lake on 7/14/80. He was apneic for at least eight minutes before cardiopulmonary resuscitation restored his breathing. He was placed on mechanical ventilation and admitted to the intensive care unit. Admission examination revealed a cyanotic unresponsive patient with rhonchi throughout both lung fields. There was edema of the right arm. Admission laboratory studies showed pH 6.93, pO₂ 125, pCO₂ 54, BUN 15 mg/dl, potassium 3.1 mg/dl, and blood alcohol 0.038 percent.

Following admission, he became anuric. By 7/16/80, his BUN had risen to 58 mg/dl and his potassium to 7.8 mg/dl. Peritoneal dialysis was instituted. The patient was treated with penicillin G, 1,000,000 units administered intravenously every 4 hours and with Dexamethasone, 4 mg, administered intravenously every 6 hours for one day and then every 12

hours. Gram negative rods, which were cultured from a blood specimen drawn on 7/18/80, were sensitive to tetracycline, chloramphenicol, and gentamycin. Antibiotic therapy was changed to chloramphenicol, one gram every 6 hours intravenously. Septicemia apparently responded to the chloramphenicol; the patient's temperature dropped from 38.8C (101.8°F) to 37.2C (99°F) and repeated blood cultures were sterile.

The patient's level of consciousness varied little during his hospitalization. He was comatose on admission and remained so even during a brief period in which he demonstrated restlessness and agitation. His pupils, which had reacted to light, became fixed on 7/23/80. He expired on 7/31/80. No autopsy was performed.

BACTERIOLOGIC STUDIES

After 24 hours the organism grew as nonpigmented, convex, shiny, hemolytic colonies which were one to two mm in size. Gram stains revealed small gram-negative pleomorphic rods. Identification first was made using API

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Table
Bacteriologic Characteristics of C. Violaceum

		Organism from
	Organism from patient	lake near accident site
Pigment	_	+
Glucose	F	F
Xylose, mannitol, inositol	_	_
Lactose, maltose	_	_
Sucrose (72 hours)	_	_
Raffinose, arabinose	_	_
Mannose (72 hours)	_	_
10% Lactose	Alk/Alk	Alk/Alk
MR/VP		
Nitrate reduction	+	_
SS, EMB, MAC	+	+
Cetrimide	_	_
Citrate	+	+
Indole	_	_
Catalase, oxidase	+	+
KIA, TSI	Alk/A	Alk/A
H ₂ S lead acetate paper TSI	_	-
Litmus milk	pept. (72 hrs)	no change (72 hrs)
Gelatin	+	+
Urease, lysine	_	_
Mobility	+	+
NaCl	trace	trace
Esculin hydrolysis	_	_

F = fermentation in oxidative-fermentative basal medium Alk/Alk = slant and butt alkaline after 24 hours Alk/A = slant alkaline, butt acid after 24 hours pept = peptonization

20E. Standard reactions confirmed the identification, as did a reference laboratory. An organism subsequently recovered from a lake near the accident site showed almost identical reactions except that this organism produced the typical pigment. The reactions are listed in the table.

COMMENT

All previously, well-documented cases of chromobacteriosis have been contracted in tropical or subtropical climates. There have been 11 cases from Southeast Asia, 10 from the southeastern United States, and 1 from Africa.¹⁻³ The validity of a possible French case has been questioned.² Thus, the present case is probably the first documented from the temperate zone and certainly the first in the United States outside of the deep south. It may be that previous cases in the north have been misdiagnosed; summer weather in the north can approach semitropical. *C. violaceum* apparently is not rare in the north as we were able to culture it from another lake near the one in which the accident preceding the septicemia occurred.

The disease has a predilection for young patients, possibly because younger, active persons are more exposed. The average age of United States cases, including this one, is 18.6 years (range 6 to 49).

It has been stated that preexisting disease does not make the individual more susceptible to *C. violaceum* infection.¹ However, Sinnott et al. have reported *C. violaceum* septicemia in a near-drowning victim.³ Our case is the second following a near drowning and, at least, suggests that near drowning may increase susceptibility to this organism.

The sensitivity of *C. violaceum* to chloramphenicol has been noted;^{2,5} the high mortality rate has been ascribed to failure to start appropriate antibiotic therapy early in a disease whose clinical course generally is long.^{1,2,4} Our patient's infection seemed to respond to chloramphenicol therapy as judged by his body temperature and his subsequent blood cultures, however, he died of irreversible anoxic encephalopathy. Unfortunately, there was no necropsy.

SUMMARY

A case of septicemia with Chromobacterium violaceum is reported. Although the septicemia responded to antibiotics, the patient died of anoxic brain damage. Some features in common with other cases are noted. These include a young patient, an organism sensitive to chloramphenicol, and the development of the septicemia in a near-drowning victim. Of particular interest is the fact that this case developed in New Jersey. All previous reported cases occurred in tropical or subtropical regions and it has been thought that C. violaceum septicemia is confined to such areas.

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Trichinosis—A Common Source Outbreak

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A common source outbreak of trichinosis involving seven patients is reported. This uncommon, but persistent disease is reviewed with emphasis on its history, life cycle, pathophysiology, presenting signs and symptoms, laboratory diagnosis, and therapy. Its protean manifestations remain a diagnostic challenge for all physicians.

nfection by trichinella spiralis now occurs infrequently in this country. Because of this, the disease often is undiagnosed. Its presence in the chronicles of history can be traced as far back as the year 1300 B.C. and the Egyptian mummy Nakht. Ancient Mosaic law, forbidding consumption of pork can be found in Leviticus 11:4,7—"... the swine, though he divide the hoof and be cloven-footed, yet he cheweth not the cud; he is unclean to you." This report describes a common source outbreak of trichinosis from custom-prepared, home-grown pork.

CASE REPORTS

Case 1—A 35-year-old male farmer of Dutch background came to the Emergency Department for evaluation of chills, fever, general malaise, and excessive thirst. He had been relatively well until approximately two weeks prior to admission at which time he noted the onset of nausea. He also complained of some generalized fatigue for the preceding few weeks. He stated that approximately three weeks prior to admission he had eaten some raw pork which had been custom prepared by a friend. The patient noted that following the onset of nausea he experienced loose stools on several different days, following which he had an excessive thirst. He denied muscle pain or weakness.

Physical examination revealed: temperature of 104°, P 140, R 20, BP 112/70 mm Hg. The patient was a well-developed, hot, pale, somewhat dehydrated, white male.

HEENT: Pupils were equally round and reactive to light and accommodation. Fundi were benign. There were no scleral hemorrhages, conjunctivitis, or swelling around the eyes. Lungs: Clear. Cardiovascular: Regular rhythm; S₁ and S₂ within normal limits; grade I apical systolic murmur; no gallops were present. Abdomen: Bowel sounds were present. No guarding, tenderness, or organomegaly were present. Extremities: Pulses were equal bilaterally. There was no evidence of edema. Laboratory Data: WBC 13, 700, Differential: 54 polys, 23 bands, 10 lymphocytes, 2 monocytes, 11 eosinophils, Hematocrit 37.7%, ESR 43 mm/Hr, Platelets were adequate. An SMA12 was within normal limits with the exception of an LDH which was 460 mU/ml (100-250), SGOT of 110 mU/ml (8-40), and a CPK of 2,370 IU/L (35-282) (MM fraction 98.3%, MB fraction 1.7%). Stool culture was negative for enteric pathogens. Studies for hepatitis A virus antibody and cytomegalovirus and blood cultures were negative. Urinalysis revealed a specific gravity of 1.018, pH of 6, Protein 1+, Blood 4+, negative glucose, ketones and bilirubin. Microscopic examination was unremarkable.

Case 2—A 21-year-old male friend of the previous patient was seen in the emergency department for evaluation of pain

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"As pointed out by Most, there is no meat inspection specifically designed to detect trichinella in pork or pork products."

and swelling around his eyes. The patient stated that for the previous two days he had experienced nausea and vomiting accompanied by vague pain around his eyes. On occasion, he had felt warm and had chills. He denied the presence of any peripheral muscle pain or tenderness. The patient stated that approximately three weeks ago he had tasted raw pork while making sausage from home-butchered pigs. Another friend of his had eaten the same pork but had not become ill. He denied dyspnea, chest pain, and productive cough.

Physical examination revealed: BP 120/70 mmHg, P 100, R 84, T100 p.o. HEENT: There was chemosis of the conjunctiva with bilateral edema of the lids. Pupils were equal and reactive to light and accommodation with extraocular movements intact. Both globes felt tense. There was no neck vein distention. The remainder of the physical examination was unremarkable. Laboratory Data: WBC 11, 700, 67 polys, 25 bands, 6 lymphs, and 2 monos, ESR 19 mm/hn, Hct 47.4%. A preliminary diagnosis of trichinosis was made.

In all, seven patients were examined and found to have contracted the disease from consumption of custom-prepared pork sausage from one common source.

DISCUSSION

Trichinella spiralis is a microscopic nematode found in carnivorous mammals and man. The scientific study of this organism began in 1835 when a first-year medical student in London, James Paget, discovered cysts in the muscle of a 50year-old man who had died of tuberculosis.14 Its discovery in animals first was made by Joseph Leidy in Philadelphia in 1846 in the extensor muscles of swine.14 In 1860, Zinker reported the first fatal case in a 20-year-old German girl.14

In the 1930s, a 16.1 percent prevalence rate was reported from examinations of 5,313 human diaphragms obtained at autopsy from throughout the United States.10 A subsequent study by Zimmermann in 1973, revealed an infection rate of 4.2 percent.3 In 1975, the Center for Disease Control reported only 284 cases of trichinosis.22 This represented, however, a two and a half times increase in the annual mean number of cases compared to the previous five years. It was felt that this large increase was associated with an unusually large number of common source outbreaks.2

In 1979, 135 cases of trichinosis were reported in the United States.¹² In 93 of these cases (68.8%), pork products from domestic swine were incriminated as causing the infection. In 33 cases (24.4%), nonpork products (walrus meat, bear meat, and ground beef) were incriminated. In 9 cases (6.7%), the source was not identified.12

Cattle are not considered a natural reservoir of trichinella spiralis. It has been well documented that beef products may be adulterated with pork, either accidentally or intentionally.2 In 1976, a survey of 12 states showed pork adulteration in 8 percent of the retail markets tested.21 As pointed out

Table Source of Incriminated Meat, United States, 1979 12 Number of Cases Supermarket-Butcher Shop or Other 63 (46.7%) Commercial Outlet Restaurant or Other Public Eating Place 4 (3.0%) Direct from Farm 9 (6.7%) 27 (20.0%) Hunted or Trapped Other 20 (14.8%) Unknown 12 (8.8%) 135 Total

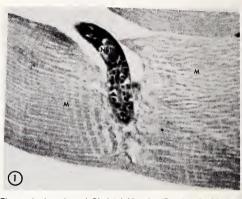


Figure 1-Invasion of Skeletal Muscle. (Reprinted with permission from The American Journal of Tropical Medicine and Hygiene, Vol. 26:69, 1977 and Allen Press, Inc.)

NBL-Newborn larva

M-Muscle

by Most, there is no meat inspection specifically designed to detect trichinella in pork or pork products.1 Only food designated as being safe for consumption without further processing can be considered safe.

The source of the contaminated meat is of interest12 (see Table). In 46.7 percent of 135 cases the infected meat was purchased from a commercial source, e.g., supermarket, butcher shop, or restaurant.

Life Cycle-Man is considered to be an accidental host to trichinella spiralis. There are two stages in its life cycle: the intestinal stage (enteral) and the stage of muscular invasion (parenteral).

The intestinal stage begins during the first week of infection when ingested larvae are released from their cysts and burrow beneath the columnar epithelium of the small bowel.6 Here the mature male and female mate and deposit new larvae. During this phase symptoms may consist only of diarrhea and/or nausea and vomiting. Fever usually is absent. It is during this stage that the patient may describe "lahmigkeit," which is a "paralysis-like" state with a feeling of muscle exhaustion and stiffness.14 Symptoms usually are related to the number of larvae produced.1

The stage of muscular invasion begins during the second to third week following ingestion and lasts about one week. During this stage, the larvae migrate throught the lamina propria of the small bowel15 into either blood vessels or the lymphatic drainage. 16,17 From here they burrow into the skeletal striated muscle (Figure 1). This stage of the infection is correlated with the patient's acute clinical disease.7 The "Cardiovascular manifestations include myocarditis, manifested by arrhythmias and conduction abnormalities on the electrocardiogram."

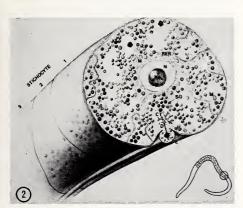


Figure 2—Cross section of trichinella spiralis. (Reprinted with permission from The American Journal of Tropical Medicine and Hygiene, Vol. 26:70 1977 and Allen Press, Inc.)

RER-Rough endoplasmic reticulum

N-Nucleus

M-Mitochondria

SG-Secretory granule

CT-Canalicular tree

D-Duct

E-Esophagus

G-Glycogen

muscular stage of the disease is manifest by edema of the eyelids, chemosis, subconjunctival hemorrhage, photophobia, decreased visual acuity, retinal hemorrhages and fever.4 Pain in the muscles begins during this stage and migrates progressively from the extraocular muscles to the masseters, the flexor tendons of extremities, the respiratory muscles, and finally to the lumbar muscles. Respiratory symptoms may include dyspnea, cough, or hoarseness. During this stage, the nausea and vomiting become less frequent. An unquenchable thirst is associated with edema formation around the eyes.14 Neurologic manifestations include headache, vertigo, deafness, aphasia and convulsions.14 It is during this stage that the disease also may resemble an acute encephalitic picture.11 One may observe decreased or absent deep tendon reflexes.11 Cutaneous symptoms during this stage include a macular red rash, sweating and formication (described as a feeling of ants crawling over the skin). Splinter hemorrhages of the nail beds occasionally are seen.14

Cardiovascular manifestations include myocarditis, manifested by arrhythmias and conduction abnormalities on the electrocardiogram. Urinary symptoms include oliguria.

The etiology of the edema is of some interest. Gould¹⁴ considers various etiologies or mechanisms in this process: toxin production by the organism, embolic plugging, direct

"An interesting but poorly understood observation is that some degree of resistance to reinfection is acquired following infection by trichinella spiralis."

invasion and allergic reaction. Generally it is felt that the edema is secondary to an inflammatory reaction, myositis and subsequent fluid transudation.¹⁴

An interesting, but poorly understood observation is that some degree of resistance to reinfection is acquired following infection by trichinella spiralis. Once the larvae become embedded within the bowel, they secrete granule-associated antigens from their stichocytes (Figure 2). These antigens form the basis of subsequent host immunity. Is It is proposed that this acquired immunity is dependent upon T cells which program B cells to secrete antibodies which interrupt the enteral phase of the life cycle.

Also it is felt that some degree of cellular immunity is obtained from the functions of the eosinophil. Donce inside striated muscle, it appears that the host immune mechanisms no longer are effective. Recovery of viable larvae has been reported from patients infected many years previously.

Laboratory Diagnosis—Various intradermal, serological, invasive, and immunodiagnostic tests can be used for diagnosis. Skin tests are positive between the 10th and 15th day following infection, but the accuracy of these tests is variable. Agar gel diffusion (AGD), although accurate, may require a week to complete. Definitive diagnosis can be made only by demonstrating larvae in the blood, spinal fluid, or muscle. Muscle biopsy, probably the most reliable method, is most accurate at least 17 days after infection. An accurate, rapid, and reliable immunodiagnostic test for detecting trichinosis has been developed by Despommier, et al. This test, felt to be more accurate than serologic tests (e.g., hemagglutination and complement-fixation) utilizes particle-associated antigens with a counterelectrophoresis technique.

The association of eosinophilia with trichinosis was observed by Brown while a medical student at Johns Hopkins Hospital. ¹⁴ Its presence, however, is not considered absolutely necessary for the diagnosis to be made. The absence of eosinophilia has been reported. ²⁰

Therapy—Effective therapy of trichinosis began in the 1950s with the use of corticosteroids. Contrary to the increased parasitism seen in laboratory animals, the use of steroids in humans has been shown to relieve the myalgia, rash, leukocytosis, and fever. The usual dose of prednisone is 40-60 mg/day until clinical improvement.²⁴

Thiabendazole, an antihelminthic, also is effective in relieving the fever and muscle pain of trichinosis. ²⁵ This drug is reported to have analgesic and anti-inflammatory properties but not immunosuppressive action. ²⁶ The usual dose is 50 mg/kg/day for seven to ten days.

CONCLUSION

Trichinosis is an infrequently encountered disease. Its early manifestations are protean and it is not distinguished

easily from such common illnesses as gastroenteritis and other viral syndromes. Reported here are two of seven cases from a common-source outbreak. The life cycle, epidemiology, clinical manifestations, diagnosis, and treatment of this uncommon but persistent disease is presented.

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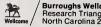
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Postsplenectomy Sepsis in an Adult Following Antipneumococcal Immunization*

STANLEY Z. TROOSKIN, M.D., and RALPH S. GRECO, M.D., Piscataway

A case of postsplenectomy sepsis in an adult following splenectomy for trauma is described. To the authors' knowledge, this patient is the first case of splenectomy for trauma in an adult immunized with antipneumococcal vaccine that was followed by death from sepsis from another encapsulated microorganism. Splenic salvage procedures as opposed to splenectomy and immunization appear to offer the only sure protection from overwhelming postsplenectomy sepsis.

he syndrome of overwhelming postsplenectomy infection (OPSI) first was described over 20 years ago.

Surgeons caring for pediatric patients long have recommended splenic salvage procedures after blunt abdominal trauma in order to prevent the disastrous complications of OPSI. Unfortunately, there is compelling evidence that this disease affects adults as well as children and those undergoing splenectomy for trauma as well as those in whom the procedure is done for hematologic disease. However, the recognition of OPSI in adults and the application of splenic salvage procedures to older patients and those operated upon for trauma remain the exception rather than the rule.

A recent case of OPSI in an adult whose splenectomy was performed because of trauma is presented in this report. To the authors' knowledge, this is the first case of splenectomy for trauma in an adult immunized with antipneumococcal vaccine which was followed by death from sepsis caused by another encapsulated bacteria. It is hoped that the consequences of this patient's disease and the failure to prevent OPSI with antipneumococcal vaccine will serve to reinforce the need for splenic salvage procedures in adults as well as in children.

CASE REPORT

A 26-year-old man was admitted to Middlesex General Hospital with a five-day history of epigastric pain, nausea, vomiting, diarrhea, and a temperature of 102°. Previous

history was unremarkable except for a splenectomy performed in 1973 for trauma. He had received Pneumovax®. On physical examination his blood pressure was 90/60, heart rate was 132, temperature was 102.5°, and respiratory rate was 30. His chest initially was clear to auscultation and percussion. Examination of his abdomen was unremarkable except for some vague epigastric tenderness. Stool was positive for occult blood. White count was 5.3 with 33 percent bands, 56 percent polys. Hematocrit was 47. Examination of the peripheral smear revealed schistocytes, burr cells, and decreased platelets. Platelet count was 76,000. Prothrombin time was 23 with a control of 11. PTT was greater than 100. Urinalysis revealed proteinuria and blood. BUN was 49 and creatinine was 4.7. Total serum bicarbonate was 15. Chest x-ray on admission was within normal limits.

He was admitted to the intensive care unit and cultures of his blood, urine, and sputum were taken. He was begun on tobramycin and clindamycin. Assays of fibrinogen and fibrin split products were consistent with disseminated intravascular coagulation. Over the next few hours, he continued to be febrile and tachycardic. A Swan-Ganz catheter was inserted and a normal pulmonary capillary wedge pressure was noted. Gram stain of the buffy coat revealed

^{*}From the Department of Surgery, UMD-Rutgers Medical School, Piscataway, NJ, where Dr. Trooskin is Assistant Professor of Surgery and Dr. Greco is Associate Professor of Surgery. Correspondence may be addressed to Dr. Trooskin at UMD, P.O. Box 101, Piscataway, NJ 08854.

"The most common infecting organism is Streptococcus pneumoniae, but OPSI also can be caused by Hemophilus influenza, Neisseria meningitidis, Escherichia coli and Staphylococcus aureus."

intracellular gram-negative cocci. Repeat chest x-ray revealed pulmonary edema and a left lower lobe infiltrate. The patient was treated with high doses of steroids. He required intubation and developed a refractory metabolic acidosis. Twenty-four hours after admission, the patient sustained a cardiac arrest and died. Blood cultures grew β -lactamase resistant *Hemophilus influenza*. Autopsy revealed edema of the retroperitoneum, cardiomegaly, biventricular hypertrophy, acute congestion of the liver, brain edema, bilateral

adrenal hemorrhages, and pneumonia.

COMMENT

In 1952, King and Shumacker described five pediatric patients with OPSI following splenectomy for hereditary spherocytosis.1 Two of these patients died. The clinical syndrome of OPSI has been well characterized.2 Patients have fever, nausea, vomiting, headache, and confusion. Sepsis is usually of pulmonary origin and rapidly progressive. Death may occur within 6 to 48 hours of hospitalization. The most common infecting organism is Streptococcus pneumoniae, but OPSI also can be caused by Hemophilus influenza, Neisseria meningitidis, Eschericia coli, and Staphylococcus aureus. Patients characteristically develop a coagulopathy, hypoglycemia, electrolyte imbalance, hypoxia, and severe respiratory insufficiency. Though the infections begin in the respiratory tract, all patients develop bacteremia and microorganisms can be found in the bloodstream if a gram stain is done of the buffy coat. Despite vigorous antibiotic treatment, fluid and electrolyte management, and respiratory support, 50 percent of patients with OPSI die as a result of their disease.

Though it was originally thought that the syndrome of OPSI was related to the underlying hematological disorder and not the asplenic state, this has not been proved to be true. It is known now that the incidence of OPSI is greater in those who have undergone splenectomy for hematological disease and in children, but OPSI also occurs in adults and in those undergoing splenectomy for trauma.³

Because of the recent introduction of polyvalent antipneumococcal vaccine and the close association between Streptococcus pneumoniae and OPSI, it has become common practice to immunize patients who must undergo splenectomy. This treatment, however, cannot be considered an alternative to splenic salvage. When one considers the large number of encapsulated bacteria that have been shown to cause OPSI, it should be evident that a vaccine which protects against only one of them hardly can be considered effective therapy. Indeed, our patient received Pneumovax®, but was not protected against overwhelming hemophilus sepsis. Prophylactic antibiotics pose even greater problems of cost and effectiveness. In short, the only completely reliable

"... the incidence of OPSI is greater in those who have undergone splenectomy for hematological disease and in children, but OPSI also occurs in adults and in those undergoing splenectomy for trauma."

method of protecting patients against OPSI is splenic salvage.

Recently, a number of investigators have suggested that ectopic splenic tissue may be protective against small numbers of pneumococci and that this method of autotransplantation improves the host response to immunization.4-6 However, species differences in both transplantation and susceptibility to Streptococcus pneumoniae are such that the use of autotransplantation in humans seems justified only as a last resort, if at all. A recent report by Rice and James of two patients who died of OPSI with splenosis documented at autopsy supports this contention.7 Numerous studies have shown conclusively that the spleen is an essential organ in the early production of antibody in response to circulating particulate antigen and also plays a crucial role in the clearance of hematogenously-borne bacteria.8 Studies conducted in our laboratory, and corroborated by others, strongly suggest that the clearance of bacteria from the bloodstream is the most important arbiter of the spleen's protective effect. This has been borne out by studies showing that partial splenectomy provides protection against pneumococcal challenge when an identifiable blood supply is preserved.9

In spite of the wealth of literature documenting the dangers of splenectomy, this operation remains the treatment of choice for trauma to the spleen, especially in adults. The reasons for this are related to surgical tradition and skepticism that OPSI affects adults. Even those who recognize the dangers of splenectomy tend to think that antipneumococcal vaccine and antibiotics will protect those who must undergo splenectomy. When one realizes that two decades passed before the evidence of OPSI in children was accepted by the surgical community, the delay in accepting OPSI in adults should come as no surprise. Nevertheless, during the last ten years, there have been many reports of successful splenic salvage.10 The procedure is safe, effective, and clearly worth the effort. In our own series of patients who have undergone splenorrhaphy, there have been no complications related to the splenic salvage procedure. All have evidence of splenic function on spleen scan. Our approach to both children and adults with suspected splenic trauma stresses splenic salvage. As soon as possible after initial clinical assessment and resuscitation, the patient undergoes open paracentesis and peritoneal lavage. If these are negative, the patient is observed. If the paracentesis and lavage are positive, the patient undergoes abdominal laparotomy. At exploration, if the patient is stable and bleeding and associated injuries are controlled easily, splenic salvage is performed. Splenectomy is done only as a last resort. To our knowledge, no patient ever has died as a direct result of splenorrhaphy. Postsplenectomy sepsis in children and adults is a mortal illness.

The fact that it is rare is a blessing, but should not deter surgeons from splenic salvage whenever feasible no matter the age of the patient.

SUMMARY

A case of overwhelming postsplenectomy sepsis (OPSI) in an adult following splenectomy for trauma was described. Although OPSI is more common following splenectomy in pediatric patients with hematologic disorders, it does occur in adults who have undergone splenectomy for trauma. The patient presented here had received antipneumococcal vaccine in the past and predictably was not protected from OPSI from Hemophilus influenza. This illustrates that current vaccination techniques cannot offer complete protection from OPSI. It also is doubtful that prophylactic antibiotics offer complete protection from OPSI. The only way to avoid OPSI is to avoid splenectomy by carrying out splenic salvage procedures whenever possible. The techniques of splenic salvage have been well described and successes noted in the recent surgical literature. Splenic salvage now should be applied to traumatized patients regardless of age and the current availability of polyvalent antipneumococcal vaccine.

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NUTRITION UPDATE

Nutrition and Immunity*

RONALD R. WATSON, Ph.D., West Lafavette, IN

he nutritional status of the elderly and of children is a major factor affecting host resistance. After maturity, some, but not all, key host defense systems decline in their level of reactivity. It is clear that many people do not die of old age, but rather from infectious diseases. L2 Compared to adults, newborns and children have greater susceptibility to many diseases due to a combination of immunological immaturity and lack of previous exposure to microbes.

MALNUTRITION AND DISEASE

Historically, the association between malnutrition and lowered disease resistance has been recognized by many cultures. It is not merely by chance that famine and pestilence are two of the dreaded "Four Horsemen of the Apocalypse," They well might have been depicted riding the same horse, so close is the historical association.1 The high morbidity and mortality suffered by malnourished populations are caused mainly by nutritional deficiencies which impair immune systems.1 A major impediment to the study of these problems in human populations lies in the complexity of their nutritional backgrounds and immunological hostdefense systems. Undernutrition as well as overnutrition in different populations may exist in a large variety of permuted combinations. These nutritional states may include deficiencies or excesses in protein, calories, vitamins, and trace minerals. In addition, the failure to distinguish between these various degrees of malnutrition prevents a critical evaluation of some human studies.

Host defenses include such diverse systems as nonspecific immunity (saliva flow, skin, bactericidal enzymes), humoral immunity (serum antibodies, complement-mediated lysis), cellular immunity (such as phagocytosis, T-lymphocyte "killer cells"), and mucosal immunity (antibodies in secretions). These immune systems vary in their response to nutritional stresses, yet their combined functions provide overall host defense. 1-3

On a worldwide basis, protein-calorie malnutrition is the most common cause of acquired immunodeficiency.\(^1\) Most human studies to date have focused on severe protein-calorie malnutrition in hospitalized children.\(^1\)\(^1\) Although children suffering from marasmus or kwashiorkor represent most dramatically the effects of malnutrition on disease susceptibility, they comprise only 3 to 5 percent of malnourished children in developing countries. In contrast, up to 60 percent of all preschool children in many preindustrial societies suffer from the milder forms of malnutrition.\(^1\) Many elderly humans in the United States who are undernourished

have contributing factors to nutritional stress including cancer, alcoholism, prolonged hospitalization, and other illnesses. In the hospitalized populations of industrialized countries, such as the United States, malnutrition is a major contributing factor to the poor health of these individuals.

EFFECTS OF MALNUTRITION ON HUMORAL IMMUNITY

The humoral immune system is comprised of soluble serum proteins, in particular immunoglobulins (IgG, IgM, IgA) and the complement system. The complement system is comprised of 11 protein components (C₁-C₁₁) that act in a coordinated "cascade" sequence in conjunction with IgA, IgG, and IgM antibodies to perform a complex set of hostdefense functions. One reaction sequence of the complement system can result in lysis of foreign cells. However, the key role of the complement system in host defense is amplification of other portions of the immune system. These include enhancement of phagocytic cells to engulf pathogens, stimulated attraction of phagocytic cells to the site of infection. and viral neutralization. Almost all studies of severely malnourished children and animals show a signficiant decrease in total hemolitic complement and an increased incidence of infection.1 For example, protein-calorie malnourished Thai and Colombian children showed a marked decrease in serum complement component C₃. A total decrease in this complement component has been shown significantly to reduce the efficiency of response by this system. On the other hand, the levels of serum antibodies which must bind to the pathogen before the complement system will function generally are unaffected by nutritional stresses. Since all complement components react in sequence, anything that significantly reduces the level of activity of even I component affects the function of several aspects of host defense. Complement levels markedly are reduced by dietary protein insufficiency in the young and elderly. 1,3 Hence, persons suffering from prolonged anorexia or surgical trauma which results in negative nitrogen balance would be susceptible to complement suppression and, hence, decreased disease resistance.

MALNUTRITION AND MUCOSAL IMMUNITY

Although the skin usually acts as an effective barrier to pathogens, there are sites in the body which lack this

^{*}Reprinted with permission of Contemporary Nutrition 6:5 (May) 1981, a newsletter from the Nutrition Department of General Mills, Inc., Minneapolis. Dr. Watson is Associate Professor of Nutrition and Immunology, Purdue University, West Lafayette, IN 47907.

nonspecific protection. The oral cavity, eye, and intestinal tract frequently are exposed to potential pathogens, in addition to those regularly present. To protect these mucosal surfaces from colonization or growth by foreign pathogens, the body has mucosal immune defenses which are susceptible to nutritional stresses. ^{1,3} These defenses include enzymes (lysozyme), flow of secretions (IgG and secretory IgA), and cellular defenses in the top cell layers of the mucosal surface.

Recently, moderate and severe protein malnutrition has been shown significantly to suppress the secretion of lysozyme into the tears of children.3,4 This could result in reduction of host defense against certain bacteria that normally would be destroyed by lysozyme. In addition, the synthesis and secretion of secretory IgA, a principal group of antibodies produced for mucosal defense, was impaired. Many pathogens enter and colonize mucosal surfaces in the intestine, lung, or mouth, which are protected by mucosal immunity. In other studies, severely protein-undernourished Thai, Indian, and Colombian children significantly had reduced (35-50 percent) levels of secretory IgA, while IgG levels were unaffected.1 The levels of nasopharyngeal secretory IgA measles and polio antibodies also were found to be low or undetected in severely protein-calorie malnourished Indian children following immunization with polio and measles viral vaccines.5 These suppressed antibody responses are very disturbing since the body relies largely on the immune system to recognize and then to respond defensively to pathogens. To the extent that malnutrition impairs immune responses to new pathogens, patients on dietary restriction may be at risk to disease from foreign organisms including those for which vaccines do not exist. Unfortunately, the effects of mild to moderate nutritional stress on secretory immune responses largely are unknown.1

NUTRITIONAL SUPPRESSION OF CELLULAR IMMUNITY

Cellular immunity is produced by a subpopulation of lymphocytes which bind to foreign protein components of microbial pathogens or cancer cells. This binding process can result in direct killing of the pathogen or, more importantly, attraction and activation of macrophages into "killer cells." The macrophages then engulf and destroy the pathogen.

Severe protein undernutrition in children and adults and in young animals frequently is associated with a profound impairment of cell-mediated immune functions. ^{1,3} Both the number and functional capability of T-lymphocytes markedly are reduced, as is the delayed hypersensitivity response to antigens and sensitizing chemicals. In general, the severity of the impaired immunological response parallels the severity of the protein or calorie nutritional deficiency. Much less is known about the effect of other nutrient deficiencies on cellular immune functions. Severe nutritional deficiencies appear to interfere with production by T-lymphocytes of protein signals to "killer" macrophages resulting in poorer phagocytosis and destruction of pathogens. In addition, the efficacy of vaccines which stimulate cell-mediated immunity may be impaired in severely malnourished individuals.

Studies involving adults and elderly people usually are complicated by surgery, cancer, and/or other diseases in addition to malnutrition. For example, patients with adult marasmus with less than 85 percent of standard weightheight ratio, but with normal levels of serum albumin, showed normal cellular immunity as determined by using *in vitro* parameters (i.e., complement fixation). On the other hand, *in vivo* tests of intradermal skin response to candidin

and streptokinase-streptodornase were suppressed. In spite of these differences, suppressed cellular immune responses, as determined by either in vivo or in vitro tests, are well recognized signs of immunosuppression and, hence, increased probability of infections following surgery. Indeed, in hospitalized, undernourished patients, presurgical nutritional therapy has been shown to help restore suppressed cellular immune responses. Such therapy may decrease the incidence of morbidity. In fact, measurement of immunological status is becoming a helpful way to assess nutritional status. 7

BENEFITS AND PROBLEMS OF MARGINAL MALNUTRITION ON HOST DEFENSES

Moderate protein malnutrition clearly is associated with important changes in immunological responsiveness. However, the changes observed in certain parameters of cellmediated immunity may be normal, impaired, or sometimes enhanced in moderately malnourished children or animals. 1,3 For example, experiments recently have shown an enhancement of cellular immunities in mature animals fed a moderately low-protein diet. 1,8,9 Marginally malnourished mice fed an 8 percent protein diet after weaning showed an increase in cellular immunities and their macrophages engulfed pathogenic bacteria at a significantly greater rate than control animals fed a complete protein diet.10 One postulated explanation may be that macrophages of these mice were activated due to increased immunocompetence of effector T-lymphocytes stimulated by the elevated number of other pathogens found in the malnourished animals. Clearly, protein or calorie intakes which are below normal, but which do not cause severe malnutrition, can produce enhancement in some immune responses in animals, 1,2,3,9 It follows, therefore, that reduced dietary intakes of protein or calories in animals sometimes result in enhanced longevity.2 For example, female mice nutritionally stressed with a 40 percent reduction in calories showed a reduced incidence of spontaneous mammary carcinoma and a 70 percent reduction in tumor incidence compared to wellnourished mice.

Immunological processes which are basic and vital to the living organism can be affected and to a certain extent controlled by nutritional manipulation. Functions such as growth, health, malignancies and tumor development, enzyme activity, longevity, and immune response all have been shown to respond to dietary manipulation. The interrelationship between longevity, immunities, and diet is very complex. These changes in the host-defense systems appear to be dependent on components of the diet, age at which the animal has started on the diet, and duration of dietary manipulation.

SUMMARY

Severe protein deficiencies such as kwashiorkor result in immunosuppression of humoral cellular and mucosal immune systems. These suppressions result in a greater incidence of disease in animals and humans, and create increased risks of morbidity and mortality due to infectious disease or neoplasias. The effect of moderate protein-calorie deficiency on immunocompetence appears to be highly variable in studies with experimental animals.

References available upon request

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WHAT IS YOUR OPINION?

The Case Against the Missionary Position

Man's innovation of the missionary position, whereby the male assumes a face to face position with a female during sexual intercourse, must be revaluated. The term arose from primitive peoples' description upon viewing the missionaries' sex acts in contrast to more animalistic rear approaches of the native people. It is not known when the missionary approach first was developed, but it has become the preferred position of modern man.

For centuries, this position has served its main purpose—tender love without complications; yet, with the onset of a sexual revolution and with numerous sex partners and challenges to the male for more vigorous bed action, the penis can become a weapon, thrusting on the vaginal vestibule so as to traumatize the entire area. As this is done during passion, no pain is realized and the area, especially the small-size caliper female urethral opening, becomes the object of minor damage. This leads to obstruction and subsequent colonization of the urethra, the bladder, and, possibly, the kidneys with bacteria from the vestibule. Recurrent urinary tract infection can be a major problem. If the male is a chlamydia carrier, chronic urethral syndromes

characterized by sterile urine dysuria and frequency are major complaints. Also, herpes simplex lesion can develop from this trauma. Other vulvar diseases, such as characroid, L.G.V. (lymphogranuloma venereum), local laceration, hematomas, and amebic ulcers can result from the minor trauma plus secondary infection by whatever organism resides in the area.

To decrease the incidence of chronic urinary infections, urethral syndromes, herpes simplex, and other female diseases, it would be sensible to revert to our primitive nature, namely, to introduce the penis into the vagina from the rear approach as our forefathers did. This automatically would protect the vestibule. Sexual enhancement can be achieved with simultaneous clitoral stimulation. The missionary position is fine for the stable, God-fearing gentle couple, but is outdated for average pleasure-seeking, modern-day sex partners.

Leon G. Smith, M.D. Director, Department of Medicine Saint Michael's Medical Center

216th Annual Meeting Medical Society of New Jersey May 14-17, 1982

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Report of the Nominating Committee

Offices to be Filled by Election 1982 Annual Meeting

Augustus L. Baker, Jr., M.D., Chairman

Office	Term	Nominee and County
President-Elect	l year	Alexander D. Kovacs, M.D., Union
1st Vice-President	l year	Frank Y. Watson, M.D., Essex
2nd Vice-President	1 year	Ralph J. Fioretti, M.D., Bergen*
T		
Trustees:	3 voors	Mules C. Marrison, Ir. M.D. Marris
1st District4th District	3 years 3 years	Myles C. Morrison, Jr., M.D., Morris Harry M. Carnes, M.D., Camden
4th District	3 years	Edwin W. Messey, M.D., Burlington
5th District	3 years	Harry W. Fullerton, Jr., M.D., Salem
	-	
Judicial Councilor:		
3rd District	3 years	Albert F. Moriconi, M.D., Mercer
AMA Delegates:		
The second secon	2 years	Alfred A. Alessi, M.D., Bergen
	2 years	Frederick W. Durham, M.D., Camden
	2 years	Karl T. Franzoni, M.D., Mercer
	2 years	John S. Madara, M.D., Salem
	2 years	Henry J. Mineur, M.D., Union
AMA Alternate Delegates		
AMA Alternate Delegates:	2 years	Palma E. Formica, M.D., Middlesex
	2 years	Charles S. Krueger, M.D., Burlington
	2 years	Carl A. Restivo, Sr., M.D., Hudson
	·	
Delegates and Alternate Delegates	to Other States	5:
New York:	1	E Stadios Basson M.D. Atlantia
DelegateAlternate	1 year 1 year	F. Sterling Brown, M.D., Atlantic John J. Pastore, M.D., Cumberland
Alternate	i yeai	John J. Pastore, M.D., Cumberland
Connecticut:		
Delegate	1 year	Merton L. Griswold, Jr., M.D., Union
Alternate	1 year	Gastone A. Milano, M.D., Atlantic
Administrative Councils:		
Legislation:		
2nd District	3 years	John J. Crosby, Jr., M.D., Hudson
3rd District	3 years	Leon A. Fraser, M.D., Mercer
Medical Services:	2	Jacob W. Eleisher, M.D. Hudson
2nd District	3 years 3 years	Joseph W. Fleisher, M.D., Hudson Vacancy**
Ju District	5 years	vacancy
Mental Health:		
4th District	3 years	George L. Triebenbacher, M.D., Ocean
5th District	3 years	Friedrich K. Racke, M.D., Cumberland
Public Health:		
5th District	2 years	Narasimhaloo Venugopal, M.D., Cumberland
2nd District	3 years	Albert Ehrlich, M.D., Hudson
3rd District	3 years	Thomas E. Desmond, M.D., Middlesex
Public Relations:	2	I M de MD Million
3rd District 6th Member	3 years 3 years	Jon Marsicano, M.D., Middlesex Edwin W. Messey, M.D., Burlington
otti Menibei	3 years	Edwin W. Messey, M.D., Burnington
Standing Committees:		
Annual Meeting	3 years	Joseph P. Cillo, M.D., Union
Auxiliary Advisory	3 years	Frank R. Romano, M.D., Union
Finance and Budget	3 years	Palma E. Formica, M.D., Middlesex
Medical Defense and	2	Mishael I Davis M.D. Marrasith
Insurance	3 years 3 years	Michael J. Doyle, M.D., Monmouth William Pomerantz, M.D., Morris
Publication	3 years	Paul J. Hirsch, M.D., Somerset
. concuton	J years	. aa. v. Imoen, m.D., oomerset
*If elected, a vacancy will exist or	the Board of	Trustees (2nd District—1 year)
elected, a racalley will exist of	the Board of	Cha District 1 July

^{**}Incumbent does not seek reelection

DOCTORS' NOTEBOOK

Trustees' Minutes December 20, 1981

A regular meeting of the Board of Trustees was held on Sunday, December 20, 1981, at the Executive Offices in Lawrenceville. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Memorial Resolution: Matthew E. Boylan ... Received unanimously the memorial resolution for Matthew E. Boylan, M.D., 1915–1981, as follows:

Whereas, Almighty God has summoned from our midst His good servant and our beloved colleague, Matthew E. Boylan, M.D.; and

Whereas, as a physician he always exemplified the attributes of a humanitarian and concerned practitioner; and

Whereas, as a leader of the Medical Society of New Jersey and a distinguished President of this Society, Doctor Boylan rendered splendid service to the physicians and people of New Jersey; now therefore be it

Resolved, that the Medical Society of New Jersey registers its profound grief at the passing of Matthew E. Boylan, M.D.; and be it further

Resolved, that this Resolution be referred to the House of Delegates to be read at the opening session at the Annual Meeting; and be it further

Resolved, that a copy of this Resolution, suitably prepared, be presented to his bereaved family in heartfelt sympathy.

Medical Student Loan Fund ... Approved customary contribution to Medical Student Loan Fund in memory of Doctor Boylan.

Secretary Pro Tem... Appointed Frank Campo, M.D., to serve as Secretary Pro Tem in the absence of the Secretary, Arthur Bernstein, M.D.

MSNJ Financial Statements ... Received and approved financial statements for November, 1981. Noted a significant increase in revenue over expenses as compared to the same period in 1980.

MSNJ 1981 Membership . . . Noted the following membership statistics and observed an increase in the active-paid category and a decrease in the active-exempt and emeritus categories:

	Nov. 30
Active Paid	7,626
Active Exempt	877
Affiliate	89
Associate	1
Emeritus	650
Total	9,243

... Noted the expense of reinstating individual members and that a special study has been initiated to determine if the reinstatement of members from June



1, 1981, to December 1, 1981, warrants the effort and expense.

AMA 1981 Membership . . . Noted the following membership statistics:

Nov. 30
4,462
759
5,221

MSNJ 1982 Membership . . . Noted 325 members have paid 1982 dues as of December 20, 1981.

Executive Committee Meeting with MSP . . . Updated discussion of coverage Blue Shield is making in participating plan agreements between representatives of Medical-Surgical Plan of New Jersey and the Executive Committee, MSNJ maintained there is improper application of service benefits against a participating physician by Blue Shield and Prudential Insurance Company in situations where a patient has major medical coverage in addition to being eligible for service benefits. If the issue is not resolved, legal action might be pursued; the Board will be provided with an update as the situation warrants.

Amendments to Motor Vehicle Regulations . . . Supported Division of Motor Vehicles' proposed peripheral vision standards for driving license applicants, but postponed consideration on the requirement for all practicing physicians conducting eye examinations to report any individual over the age of 15 who did not meet vision standards.

Note: Increasing evidence shows that a fairly high number of automobile accidents are caused by individuals with limited peripheral vision.

Executive Search Committee . . . Announced appointment of Dr. Goracci to serve on a five-member executive search committee to select a Commissioner of Health; Dr. Goracci's appointment is a positive step forward in the Society's association with the Kean administration.

Committee on Impaired Physicians ... Noted serious concerns involving the introduction of legislation requiring: (1) all practicing professionals to report impaired colleagues to the State Board of Medical Examiners, and (2) insurance companies to report all professional liability claims to the State Board. Mr.

Maressa emphasized that no agreement should be made to the present proposals.

Note: Representatives of MSNJ met with representatives of the Attorney General and Governor's Office in September, 1981, to discuss the problem of impaired physicians and it was suggested that the Attorney General draft a memorandum of understanding for review by MSNJ.

New Jersey Foundation for Health Care Evaluation . . . Agreed to invite legal counsel of New Jersey Foundation for Health Care Evaluation to address the Board before proceeding with dissolution of the corporation as mandated by action of the 1981 House of Delegates (to discontinue the funding of New Jersey Foundation for Health Care Evaluation by MSNJ).

New Jersey State Medical Underwriters, Inc. . .

- (1) The 1982 Rates ... Board of Governors of MIIENJ filed for a rate increase of 16.1 percent.
- (2) Declaration of Dividend ... A 20 percent dividend will be declared for the policy year 1977. Those physicians still insured will receive a credit; other physicians will receive a check.
- (3) Discontinuance of Subordinated Loan Requirements . . . Agreed to incorporate into the rate filing a request that future insureds not be required to pay subordinated loan monies. Under the terms in effect, upon discontinuance of practice or employment, subordinated loan monies will be refunded to those who have paid.
- (4) Computer Software . . . Agreement reached between the Board of Directors of the Underwriter and the Board of Governors of the Exchange regarding computer software and services. If a service is developed as a result of the professional liability program, through the Board of Governors, and marketed outside the state, the income from the activity will be split: 60 percent for the Board of Governors and 40 percent for the Underwriter. If a proposal is developed (not as a result of the professional liability program) and marketed in New Jersey or outside the state, the profits from the activity will be split: 60 percent for the Underwriter and 40 percent for the Board of Governors.

Office Space of MIIENJ ... Arranged for Medical Inter-Insurance Exchange of New Jersey to utilize a portion of the office space formerly used by the New Jersey Foundation for Health Care Evaluation; office area occupied by the Academy of Medicine of New Jersey may be expanded to accommodate growth.

UMD . . . Received a report from Dr. Stanley Bergen, President of the University of Medicine and Dentistry of New Jersey, noting the need to examine the issues of alien foreign medical graduates, United States foreign medical graduates, and physician supply in the 1990s.

- (1) Alien Foreign Medical Graduates . . . Noted that indications show a decrease in the immigration of foreign nationals; these students are no longer a major source of physicians in the United States due, in part, to strict regulations upon entry and difficult qualifying examinations.
- (2) United States Citizen Foreign Medical Students and Graduates ... Noted that with the increase in domestic medical school applicants, many are forced to seek foreign opportunities. Interest in having these students return to the United States is increasing, and programs to provide reentry into the medical education and medical care system in the United States are available. The Coordinated Transfer Service allows a student to transfer to domestic medical school after two years. UMDNJ finds the program rewarding and has accepted between 25 and 40 students in the last eight out of nine years; program is closed presently because maximum level has been achieved without jeopardizing the quality of the program. The Fifth Pathway Program allows those who failed to gain transfer admission into a nine-month clerkship program for possible licensure in the United States; the program is successful and has been used as a model program.
- (3) Future Plans...Raised questions dealing with control of clinical clerkships of foreign medical students, the Fifth Pathway Program, and the need for new programs of clinical training. Recommendations by Administration of UMDNJ include extensive study and reporting on all related issues to be composed and delivered to the Board within six months. Development of a unified plan to deal with foreign medical graduate issues will be pursued

in conjunction with New Jersey Department of Higher Education, MSNJ, New Jersey Association of Osteopathic Physicians and Surgeons, and the State Board of Medical Examiners.

New Jersey Hospital Association . . . Received a communication from Jack W. Owen, President of the New Jersey Hospital Association, regarding the formation of a health facilities resource council. Agreed that MSNJ should have a position regarding health care planning; directed President of MSNJ to appoint Ad Hoc Committee to develop position by May.

Council on Medical Services . . . Approved the following recommendations:

That the proposed revisions to chapters from the Accreditation Manual for Hospitals, presented by the Joint Commission on Accreditation of Hospitals on August 18, 1981, be accepted with the suggested change regarding temporary privileges and methods of appointment, page eight, paragraph six of the medical staff section: that temporary privileges be granted in a like manner as regular privileges so as to avoid any possibility of there being an inadequately trained physician granted privileges, for any period of time. (Italic portion was deleted by the Board.)

Note: Dr. John Pastore and Dr. Edwin Wilson, members of the Ad Hoc Committee, reviewed proposed revisions of chapters from Accreditation Manual for Hospitals and submitted outline of their findings.

Committee on Medical Defense and Insurance . . . Approved the following recommendation:

That MSNJ rescind its approval of the Dental Services Plan of New Jersey and offer to its membership a Dental Insurance Program underwritten by Blue Shield of New Jersey as submitted by Donald F. Smith and Associates.

Note: As of July 1, 1981, meeting, the Committee agreed to recommend approval of program proposed by Dental Service Plan of New Jersey, Inc; the program was approved by the Board at September 20, 1981, meeting. Substantial changes in the proposal and major concessions by Blue Shield of New Jersey resulted in the offer of a new plan to the membership.

Committee on Medicaid . . . Approved the following recommendation:

That the Board of Trustees request the Administrator of the Health Care Financing Administration to approve the Primary Care Pilot Project for Medicaid Eligibles in Mercer and Atlantic Counties.

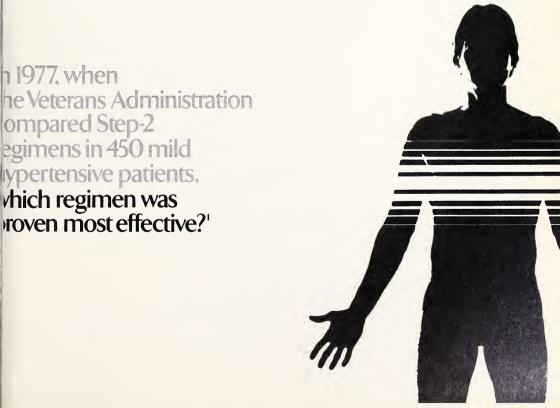
Note: Primary Care Pilot Project is designed to bring the Medicaid patient into the mainstream of care and to decrease the need for hospitalization and expensive hospital services.

Old Business . . .

(1) Education Programs on Prescription Drug Abuse . . . Agreed unanimously to the following resolution and received the item as informative:

The AMNJ Board of Trustees recognizes the need and accepts the challenge from MSNJ to develop high-quality programs designed to reach the physicians in the state and will make a dedicated and substantial effort to accomplish this goal. The Education Committee of the AMNJ is directed to develop a variety of program formats so as to reach the maximum number of physicians.

(2) Psychiatric Illnesses and Medical Insurance Policies ... Directed that information received from the New Jersey Association of Medical Specialty Socie-



ties be referred to the Ad Hoc Committee to review insurance benefits for psychiatric care. Representatives from the ten specialty societies adopted a resolution requesting MSNJ to sponsor a bill to cover psychiatric illnesses in the same fashion as other illnesses.

(3) Foundation of the University of Medicine and Dentistry of New Jersey . . . Postponed decision on whether to continue financial support of the Foundation until review of annual report is completed.

New Business . . .

(1) Pronouncement of Death ... Expressed concern over proposed amendment (N.J.A.C. 13:35-6.5, Pronouncement of a Death at a Home, Medical, or Nonmedical Facility) to allow registered professional nurses or certified emergency medical technicians to make pronouncement of death when physician is unavailable. The intent is to alleviate the burden borne by the family, police, or ambulance squad. Forwarded objections to State Board of Medical Examiners noting that a more appropriate resolution is to have the body transported to nearest hospital emergency department for pronouncement.

(2) Retroactive Dues Exemption . . . Denied request for retroactive dues exemption by Union County Medical Society member; deadline for exemption is March 1 of any given year.

UMD Notes

Stanley S. Bergen, Jr., M.D. President

People never have been concerned more about the environment. Recently, a resident in a central New Jersey community placed a call to the new Occupational and Environmental Medicine Clinic established by our UMD-Rutgers Medical School in Piscataway.

Dr. Bernard Goldstein, Chairman of the school's Department of Environmental and Community Medicine, tells the story: "The woman developed bumps on her legs and suspected they were caused by the community's water. It turned out the water had nothing to do with her condition. But it is an ideal example of some of the calls we've been getting since opening the clinic. We have had to do a lot of calming of public fear."

Despite some false alarms, the need for such a clinic is clear. Twenty years ago, environmentalists were not a very fashionable breed. The nation was concerned with progress and not preservation. Since then, we have learned some lessons the hard way. Dangerous contaminants have been found in our air and water. Associations between cancer and workplace materials, such as asbestos and polyvinyl chloride, were substantiated. Our state became a haven for the illegal dumping of hazardous wastes, gaining the label "Cancer Alley."

Consequently, we have seen a growing concern and skepticism about what we eat and drink, the air we breathe, and the place we work. The Occupational and Environmental Medicine Clinic is one of several measures the University of Medicine and Dentistry of New Jersey is taking in response to the environmental dilemma. It is part of a special emphasis on strengthening education and research in environmental medicine and toxicology, and developing programs to diagnose and treat occupational- and environmental-related illnesses.

The clinic is open Tuesday afternoons at Middlesex General Hospital, New Brunswick, UMD-Rutgers Medical School's core teaching hospital. Physicians will see patients who suspect they are suffering the effects of exposure to a hazardous substance or material.

On our Newark campus, a new Toxicology Laboratory is adding another dimension to teaching, research, and service in connection with environmental dangers. The laboratory, part of the Department of Pharmacology at the UMD-New Jersey Medical School, is focusing studies on the toxicity of chemicals found in drinking water, soft drinks, pesticides, and new drugs being considered for FDA approval. The facility is equipped with elaborate instrumentation for chemical detection and analysis and is staffed with technicians trained in the latest methodologies.

Clinically, the laboratory's ability to detect as many as 200 different chemicals is proving especially valuable in life and death poisoning cases and for therapeutic drug monitoring. The speed and accuracy of the staff already has been credited with saving lives. The rapid response time, in part, is attributed to the laboratory's setting in an education and research institution.

We foresee the Toxicology Laboratory becoming a statewide resource providing assistance during health emergencies and accidents involving hazardous materials and necessitating mass screenings to identify potential medical problems. A close association with industry is anticipated, particularly in developing routine, periodic screening programs

At UMD-Rutgers Medical School investigators are studying the mechanisms by which environmental and occupational chemicals cause cancer. Special interest is being devoted to solvents including benzene and air pollutants, such as ozone and nitrogen dioxide.

Regarding our educational efforts, UMD has joined with Rutgers University to offer a Ph.D. degree in toxicology. Initiated last year, the program already is among the largest in the nation in terms of registered students and a faculty comprised of specialists from both universities and private industry.

Courses in occupational medicine, aimed at keeping practicing physicians up-to-date in the field, are offered regularly by UMD-Rutgers Medical School. The school is one of a few in the nation with an occupational medicine "miniresidency" program—an intensive three-week course for physicians seeking to expand their knowledge of the subject and their qualifications for specialty certification. A full residency also is being developed.

The UMD-New Jersey Medical School offers a toxicology tract to Ph.D. candidates in the UMD-Graduate School of Biomedical Sciences on the Newark campus. Also, the school participates in a master's program sponsored by the graduate school and the New Jersey Institute of Technology.

Another offering—a toxicology baccalaureate degree—is in the works as well, being developed jointly by the UMD-School of Allied Health Professions in Newark and Montclair State College.

It will take significant time, effort, and patience to fully understand, combat, and minimize environmental hazards. From our vantage point, the hard work and dedication being applied to that end has New Jersey on the right track.

MSNJ Auxiliary Phyllis Romano, President

What are the issues facing American medicine today? They are cost of medi-

cal care, quality of medical care, national health insurance, and medical manpower. Who will speak for us?

The survival of the private practice of medicine is dependent on the future of organizations that represent the needs of the private practicing physician. The medical society, at national, state, and local levels, is the appropriate body to carry out such representation. They have the history, motivation, expertise, and mechanism to do so. All of the elements of these societies are interested in the protection of the legitimate privileges and rights of the members as well as insuring that obligations and responsibilities are met.

However, we must recognize that almost each member of the medical profession in private practice has a spouse who is just as interested in the protection of the future. For the most part, spouses have been much too passive in making sure that their own interests are being pursued. There are two ways to be an actively interested spouse. The first way is for a spouse to learn privately about

the profession—to work in the practice, to seek to influence the political arena, and to volunteer to help where possible. All of these private efforts are vital, well meaning, and, hopefully, productive, but these efforts are unilateral, weak by numbers, possibly disorganized, and definitely exhausting.

Look at what else a spouse can do. Join the Medical Society Auxiliary. Efforts will be organized, productive, energy efficient, motivating to others, and gratifying by assistance and identification.

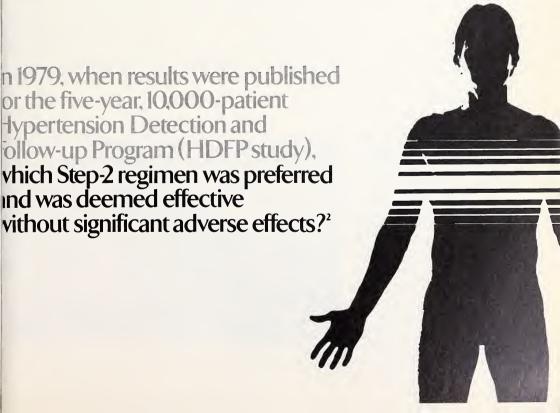
Remember, the joint goals of you and your spouse can be met only if the medical profession survives as a free-standing profession. This requires constant vigilance, education, effort, politicizing, caring, working, and occasional weeping. A spouse can go it alone—and accomplish very little—or can join the Auxiliary and become active in its work and see results multiplied far beyond expectations.

Spouses are a vital cog in the survival of medicine. We will fail without them.

Academy Accreditation

The Academy of Medicine of New Jersey is pleased to announce that the Accreditation Council for Continuing Medical Education has approved reaccreditation of the Academy for a four-year period. This approval is the result of an extensive review by the ACCME's Accreditation Review Committee and authorizes the Academy to continue to sponsor accredited continuing medical education programs for New Jersey physicians. The Academy was approved originally in 1972 and will be due for resurvey in 1985.

The Academy of Medicine is the primary sponsor of continuing medical education activities for physicians in New Jersey. By virtue of this continued accreditation and confidence by the ACCME, the Academy will continue to offer accredited symposia to the New Jersey medical community. During the current 1981-82 academic year, the Academy will sponsor directly and co-



sponsor with other organizations approximately 1,300 accredited meetings that will be attended by over 90,000 participants.

The Academy is a nonprofit, tax-exempt, professional association with over 2,000 members representing medical, dental, and allied professions. The Academy, founded in 1911, celebrated its 70th anniversary of service to the medical community during the past year. Information on Academy services and activities can be obtained by contacting the Executive Offices located at Two Princess Road, Lawrenceville, NJ 08648 or by calling 609-896-1717.

Voluntary Medical Peer Review

The AMA House of Delegates, in December, 1981, adopted the following set of principles for voluntary peer review. These principles should be found in any peer review organization or system. The objective is to assure the quality and appropriateness of medical care services.

- 1. Medical peer review is an organized effort to evaluate and analyze medical care services delivered to patients and to assure the quality and appropriateness of these services. Peer review exists to maintain and to improve the quality of medical care.
- 2. Medical peer review is a local process.
- 3. Physicians, ultimately, are responsible for all peer review of medical care.
- 4. Physicians involved in peer review should be representatives of the medical community; participation must be structured to maximize the involvement of the medical community. Any peer review process must provide for consideration of the views of individual physicians, groups of physicians, or institutions under review.
- 5. Peer review evaluations are based on appropriateness, medical necessity, and efficiency of services to assure quality medical care.
- 6. Any system of medical peer review must have established procedures.
- 7. Peer review of medical practice and the patterns of medical practice of individual physicians, groups of physicians, and physicians within institutions are

ongoing processes of assessment and evaluation.

- 8. Peer review is an educational process for physicians to assure quality medical services.
- 9. Any peer review process must protect the confidentiality of medical information obtained and used in conducting peer review.

Historical Resources

The third formal meeting of the Medical History Society of New Jersey was held in October, 1981, at the New Jersey Historical Society in Newark. The program included the following speakers: Dr. Paul B. Sheldon, Dr. Harry Bloch, Dr. William H. Helfand, and Dr. Francesco Cordasco. The accompanying photograph was a part of Dr. Helfand's lecture, "Postcards as a Resource for the Social History of Medicine and Pharmacy." The Froelich Pharmacy postcard, issued around 1910, is typical of the many cards that appeared in the early part of the century to advertise various businesses. The pharmacist and one of his assistants can be seen in front of the store; but the photograph was not enough to attract attention, so a few lines of text were added.

The Medical History Society of New Jersey was organized in May, 1980, due to the efforts of Dr. Morris H. Saffron. More than 40 people attended the organization meeting and listened to the first annual Morris H. Saffron Lecture, "The Control of Smallpox in England and Colonial America," delivered by Dr. Genevieve Miller.

On June 25, 1980, an ad hoc committee—composed of Dr. Peter J. Guthorn, Dr. Richard P. Wedeen, Professor David L. Cowen, Vincent J. Cirillo, Dr. Morris H. Saffron, James J. Goodrich, and Dr. Arthur Krosnick—met at the George F. Smith Library to formulate the MHSNJ constitution and to plan the society's first formal meeting.

The first formal meeting was held on October 8, 1980, at Rutgers Medical Center in Piscataway. Dr. Guthorn was elected President; Professor Cowen, Vice-President; Mr. Cirillo, Secretary; Dr. Wedeen, Treasurer; and Dr. Saffron, Counselor. The program included the following speakers: Dr. Francis P. Chinard, Dr. John Z. Bowers, Dr. Richard Wedeen, and Mr. Sam Alewitz; the papers presented were published in *The Journal*.

The Medical History Society of New Jersey held its second formal meeting on May 20, 1981. The program included the following speakers, Dr. Milton B. Asbell, Professor David L. Cowen, and Dr. Floyd G. Stevenson, the Director of the Institute of the History of Medicine, John Hopkins University, who delivered the second annual Morris H. Saffron Lecture entitled "The Typhoid Pattern." Professor Cowen's paper entitled "19th Century Drug Therapy: A Computer Analysis of the 1854 Prescription" subsequently was published in *The Journal*.



The Froelich Pharmacy postcard.

Prevention and Modern Treatment of Tuberculosis*

PREVENTION

Tuberculosis is unusual among infectious diseases in that a valid distinction exists between infection and disease. The invading airborne Mycobacterium tuberculosis organisms infect the lung tissue. Usually the body's defensive mechanisms are such that the infection does not spread, the bacteria being walled off by fibrous tissue. About 80 percent of cases of disease result months or years later from such inapparent infections. The risk of this happening is lifelong. This risk can be reduced greatly by taking isoniazid (INH).

Six to ten weeks after an initial infection, the presence of the bacteria usually is signaled by the development of a delayed hypersensitivity reaction to tuberculin. The standard Mantoux tuberculin test consists of injecting 5 TU (tuberculin units) of PPD tuberculin intradermally and measuring the reaction in millimeters of induration (not

erythema) after 48 to 72 hours. The reactions always should be recorded in mm. If it is 10 or more, the reaction is strong presumptive evidence that the subject was infected at some time in the past with M. tuberculosis. A chest x-ray should be done promptly to see whether there is evidence of current chest disease. If the x-ray is negative and the individual is under the age of 35, INH should be given for one year. The adult dose is 300 mg in one tablet daily. The recommended dose for a child is 10 mg/kg up to 300 mg. In the case of older, debilitated, or chronically ill patients, INH may be supplemented with pyridoxine (vitamin B₆) 10 mg daily, in order to prevent peripheral neuritis that can occur as a side effect. There is no present evidence of any advantage to giving a daily INH dose in excess of 300 mg or in prolonging administration beyond one year. There are no data to show that any other medication is effective as a preventive agent. If the subject has an adverse reaction to INH and is at special risk of developing tuberculosis disease, he or she can be kept under careful surveillance for the development of symp-

The priorities for INH use as listed by the American Thoracic Society are:

- Close contacts of persons with recently diagnosed tuberculosis.
- 2. Tuberculin skin-test reactors with chest x-ray consistent with non-progressive tuberculosis but in whom there are neither positive bacteriological findings nor a history of adequate chemotherapy.
 - 3. Newly infected individuals.
- 4. Skin-test reactors in special clinical situations: (a) Prolonged therapy with adrenocorticoids; (b) Immunosuppressive therapy; (c) Some hematologic and reticuloendothelial diseases such as leukemia or Hodgkin's disease; (d) Dia-

*This material is a joint statement by the New Jersey Department of Health and the New Jersey Thoracic Society prepared by Hugh D. Palmer, M.D., Director, Tuberculosis Services, New Jersey State Department of Health; L. Fred Ayvazian, M.D., Professor of Medicine, UMD-New Jersey Medical School and Chief, Pulmonary Section, Veterans Administration Medical Center, East Orange, NJ; and Lee B. Reichman, M.D., Professor of Medicine, UMD-New Jersey Medical School and Chief, Pulmonary Division, College Hospital, Newark, NJ.



betes mellitus; (e) Silicosis; and (f) After gastrectomy.

5. Others with significant skin-test reactions. This includes drug abusers, who have been shown in some areas to have a high rate of infection.

The risk of tuberculosis is highest in infancy, high again in adolescence and early adult life, and continues at a low rate throughout life.

If the person is aged 35 or older, there is risk of INH-associated hepatotoxicity. This risk will exist only as long as INH is given, and must be weighed against the risk of developing tuberculosis disease, which is lifelong. If such a person recently has converted to a significant Mantoux tuberculin reaction (i.e. showing an increase of at least 6 mm to 10 or more mm of induration), or is otherwise at special risk. INH is advised but the subject should be kept under careful monthly surveillance. Hepatic function tests are not recommended unless symptoms of hepatic dysfunction occur. Moderate elevations of liver enzymes, in the absence of symptoms, are not an indication for discontinuing INH, and can be expected to return to normal spontaneously.

To detect adverse side effects, monthly surveillance by a physician or knowledgeable nurse is recommended. Such surveillance is facilitated by restricting the dispensing of the medication to a one-month supply at a time.

DIAGNOSIS

About 80 percent of reported cases of tuberculosis are pulmonary. Diagnosis depends on history, signs, and symptoms; on the Mantoux tuberculin reaction; on x-ray examination; and on bacteriology. For a patient suspected of having current tuberculosis of the respiratory tract, three early morning sputum specimens obtained on successive days are recommended. If the patient is unable to produce sputum, nebulized specimens can be obtained at a chest clinic or general hospital. The specimens should be examined by both smear (spread) and culture at the Laboratory of the State Department of Health or at a laboratory specifically approved by that Department for mycobacteriology.

Therapy with at least two medications should be given and, in the presence of other clinical evidence, should not be delayed until a positive culture is obtained. The presence of acid-fast bacilli (AFB) usually will be reported within 48 hours of receipt of the specimen, and the final culture result in six weeks.

In addition, the Mycobacteriology Laboratory of the State Department of Health routinely tests initial M. tuberculosis cultures for susceptibility to the standard medications. Susceptibility tests against other medications, including capreomycin and pyrazinamide, will be done on request.

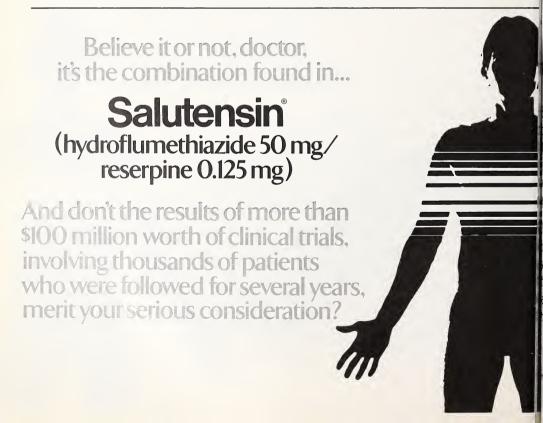
TREATMENT

The following statements constitute the current recommendations of the Tuberculosis Advisory Council of the State Department of Health and the New Jersey Thoracic Society.

SHORT-COURSE CHEMOTHERAPY

Field studies in the United States have shown that a shorter (9 months) course of chemotherapy can be curative in cases of uncomplicated pulmonary tuberculosis.

Recommendations for short-course chemotherapy (SCC) are included in a joint statement of the American Thoracic Society and the Centers for



Disease Control of the United States Public Health Service, and follow. Explanatory notes are in italics.

(1) A chemotherapy regimen using a "core" of isoniazid and rifampin for a minimum of nine months' duration is an acceptable alternative to regimens now being used for adults with uncomplicated pulmonary tuberculosis.

Short-course chemotherapy is only for cases of uncomplicated pulmonary tuberculosis in adults and children.

Although extensive data are not available for children, the regimen probably would be suitable for children as well. At this time, recommendations for shortened treatment cannot be made for patients with extrapulmonary tuberculosis, for drug-resistant cases, or for patients with complicating medical conditions (diabetes, silicosis, immunosuppressive drugs, or diseases).

(2) For the initial phase of treatment, the patient may or may not be hospitalized, depending on the severity of symptoms, public health considerations of infectiousness, and the ability to ingest medications and provide self-care.

If hospitalization is necessary, the patient generally can be discharged within 14 days. Daily supervised medication usually will render the patient noninfectious, as indicated by disappearance of cough and excess sputum, and decrease in the number of acid-fast bacilli on smears.

(3) Treatment for the adult patient should begin with isoniazid (INH) (300 mg) and rifampin (RIF) (600 mg) daily.

The use of capsules containing both isoniazid and rifampin is recommended. Two capsules each containing 150 mg of isoniazid and 300 mg of rifampin supply the required daily adult dose.

In children, give INH 10 mg/kg up to 300 mg and RIF 10-20 mg/kg up to 600 mg daily.

Only limited data concerning the use of rifampin (RIF) in children have been published. Liquid INH is available, but liquid preparations of rifampin are not, and must be made up fresh for each patient. The two suspensions should not be combined or stored in the same container.

Ethambutol (EMB) (15 mg/kg daily) should be added if the patient has emigrated from an area with a high level of initial drug resistance or if a history of previous antituberculosis chemotherapy is obtained. Drug susceptibility testing should be carried out under these cir-

cumstances because of the increased chance of initial drug resistance, especially to INH. If used, EMB should be continued until initial drug susceptibility studies conform susceptibility to INH and RIF. If resistance is found, a revision of the chemotherapy regimen and the length of treatment will be required.

Ethambutol should be used only in children whose visual acuity can be monitored. If resistance to INH is thought to be likely in a very young child, para-aminosalicylic acid (PAS) (200-300 mg/kg up to 12 gm daily) or streptomycin (SM) (20 mg/kg up to 1 gm daily) could be added to the INH-RIF regimen until the results of drug susceptibility studies are available.²

Drug susceptibility tests (antibiograms) are done routinely by the State Health Department's Mycobacteriology Laboratory on initial cultures identified as M. tuberculosis.

(4) After an initial daily phase of chemotherapy ranging from two weeks to two months, treatment should be continued, employing either daily self-given or twice-weekly supervised isoniazid and rifampin. If drugs are self-administered, adherence to the regime

nd there's more proof on the way!

2 will see the completion of the Multiple Risk tor Intervention Trial (MRFIT)—a six-year, 200-patient study assessing the factors that rease risk of cardiovascular disease. For the nagement of hypertension, the preferred 2-2 regimen in this study is reserpine-thiazide.

978, in a preliminary report presented to the demiology Section of the American Heart ociation (Dallas, Nov 1978), after 12 months he trial, fewer patients (5.3%) treated with expine suffered depression than even the reated control group (7.7%)!

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should be monitored carefully by such indicators as clinic attendance, pill counts, urine tests, and bacteriologic examinations of the sputum. If a patient is judged to be unreliable in self-administering medication, therapy should be switched to directly administered twiceweekly INH (15 mg/kg) and RIF (600 mg). Patients who are receiving RIF intermittently should be monitored regularly by history for possible manifestations of thrombocytopenia (purpura, petechiae, hematuria) or the flu syndrome. Directly administered biweekly medications may be provided or arranged through a chest clinic. A 60 kg adult, for example, would require 900 mg of INH and 600 mg of rifampin. This can be given most easily with two capsules of INH and RIF combined, and two 300 mg INH tablets-twice weekly. Isoniazid (INH) is available in 300 mg and 100 mg tablets.

Doses of RIF higher than 600 mg, or once weekly administration of RIF at any dosage, should not be used because of the known increased incidence of certain adverse reactions-such as the flu syndrome (fever, chills, headache, bone pain, dizziness), shock, shortness

of breath, hemolytic anemia, renal failure, and thrombocytopenia.2

(5) Treatment should be continued for no less than nine months and longer if necessary (until at least six months have elapsed from conversion of sputum to culture negativity). Since over 90 percent of the patients taking isoniazid and rifampin can be expected to become sputum negative within three months of starting treatment, total treatment for more than nine months should be exceptional.

If the sputum or bronchial washings are smear positive for acid-fast bacilli (AFB) but M. tuberculosis subsequently is not identified on culture, therapy should be continued until six months after the last report showing AFB. If a diagnosis of uncomplicated pulmonary tuberculosis has been made and sputum or bronchial washings are negative and remain bacteriologically negative on both smear and culture, short-course chemotherapy of nine months is recommended. The recommendation of nine months of chemotherapy applies only to regimens containing both INH and RIF.

If there are serious questions regarding the regularity of drug ingestion or if there have been complicating medical conditions, or if there is evidence of disseminated disease, it may be advisable to extend the duration of treatment even beyond six months of sputum negativity.

Bacteriologic examination should be done at least once a month until sputum conversion occurs, and then every two to three months during the treatment phase. Repeated bacteriologic examinations are necessary for evaluating the patient's response to therapy and determining the appropriate length of treatment because treatment must continue for no less than nine months and extend at least six months after sputum conversion. This means the conversion from a positive culture to persistently negative cultures, or in the absence of any positive culture, the change from smears positive for AFB to smears consistently negative for AFB.

(6) Patients should remain under surveillance for 12 months after completion of therapy. This practice should be continued until sufficient data are accumulated to assure the efficacy of the SCC regime(s) under field conditions in the United States.1

During the 12-month surveillance peri-

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(Hydroflumethiazide, Reserpine Antihypertensive Formulation)

Brief Summary of Prescribing information (12) 10/27/78

For complete information consult Official Package Circular.

WARNING

This fixed combination drug is not indicated for initial therapy of hypertension. Hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension is not static, but must be reevaluated as conditions in each patient warrant.

CONTRAINDICATIONS

Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.

WARNINGS

Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or

without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients.

Use in Pregnancy

Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.

PRECAUTIONS

Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokalemia

(especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss may cause digitali intoxication. Potassium loss responds to potassium-rich foods, potassium chloride o if necessary, discontinuation of therapy. Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surger or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosi or extensive cerebral vascular disease or bronchial asthma and in those with a histor of peptic ulceration or bronchial asthma; it post-sympathectomy patients; in patients on quinidine; and in patients with gallstone: in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated witl this agent.

od, sputum specimens should be obtained at 3, 6, and 12 months for smear and culture. Periodic chest x-rays are not recommended. In the absence of signs or symptoms compatible with pulmonary tuberculosis, the patient should be discharged from all further medical supervision for tuberculosis when the 12 months of surveillance have been completed, but the patient should be instructed to return if signs or symptoms recur.

In summary, short-course chemotherapy (SCC) is recommended only for diagnosed cases of uncomplicated pulmonary tuberculosis. Such cases may be: culture positive for M. tuberculosis, smear positive and culture negative, or negative on both smear and culture.

STANDARD THERAPY

Standard treatment of newly diagnosed pulmonary tuberculosis can result in a cure in about 18 months. This involves the use of two or more medications to which the patient's organisms are susceptible, administration without any significant interruption, and monthly professional surveillance for side effects and noncompliance. Isoniazid and rifampin frequently are used.

Compliance will be enhanced if the number of pills or capsules to be ingested is kept to a minimum. Thus, if both INH and rifampin are prescribed for an adult, it is recommended that capsules combining the two medications be used. Two capsules provide 300 mg of INH and 600 mg of rifampin.

Problem cases may require treatment beyond 18 months, but other options are available. Difficult or recalcitrant patients, such as alcoholics or other drug abusers, can be given directly supervised therapy. Arrangements for such a regimen can be made by a chest clinic or with a home health (nursing) agency.

DISCHARGE

Patients who sucessfully have completed the prescribed course of standard therapy should be discharged from all further supervision for tuberculosis. If short-course chemotherapy has been used, the patient should be discharged from all further supervision for tuberculosis after the recommended 12 months of surveillance have been completed successfully.

In all cases, the patient should be

advised to return to the physician or chest clinic if symptoms occur.

LABORATORY SERVICES

If clinical response is poor, the possible development of drug resistance should be investigated. Drug susceptibility results from the Laboratory of the State Department of Health should be used as a guide for changing the regimen. If a drug is discontinued because of bacterial resistance, the patient should be given two medications not previously used. The addition of a single drug at a time to a failing regime most certainly will result in the development of further resistance and treatment failure. The regime should always include at least two medications to which the patient's organisms are susceptible.

If bacteriological examinations show the presence of a mycobacterial species other than M. tuberculosis, a diagnosis of nontuberculous (atypical) mycobacteriosis must be reported and appropriate therapy begun. Drug susceptibility tests on cultures of atypical mycobacteria will be performed by the Laboratory of the State Department of Health on request.

ADVERSE REACTIONS

Hydroflumethiazide

Skin-rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation.

Reserpine

Depression, peptic ulceration, diarrhea, Parkinsonism, nasal stuffiness, dryness of the mouth, weight gain, impotence or decreased libido, conjunctival injection, dull sensorium, deafness, glaucoma, uveitis, optic atrophy, and, with overdosage, agitation, insomnia and nightmares.

USUAL DOSE

1 tablet b.i.d.

SUPPLIED

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References:

- Propranolol in the treatment of essential hypertension. Veterans Administration Cooperative Study Group on Antihypertensive Agents. JAMA 237:2303-2310, 1977.
- Five-year findings of the hypertension detection and follow-up program: I. Reduction in mortality of persons with high blood pressure, including mild hypertension. Hypertension Detection and Follow-up Program Cooperative Group, JAMA 242:2562-2571, 1979.
- The 1980 Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. Arch Intern Med 140:1280-1285, 1980.

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If no bacteriological evidence of mycobacterial infection is found, a fungus infection of the lungs should be considered. Sputum specimens should be sent to the State Health Department Laboratory, specifically requesting examination for the presence of fungi.

REPORTING AND EPIDEMIOLOGY

The State Sanitary Code requires the reporting, within 12 hours of diagnosis, of all forms of tuberculosis and of nontuberculous (atypical) mycobacteriosis. Diagnosis of atypical mycobacterial disease can be made only on the basis of a culture. The prompt reporting of tuberculosis and of tuberculosis suspects is important so that close contacts promptly can be identified, examined, and followed up as necessary. A close contact whose Mantoux reaction is less than 5 mm initially should be retested in three months. If still less than 5 mm and the contact with a case of infectious respiratory tuberculosis effectively has been broken, the individual should be discharged.

MEDICATIONS

Antituberculosis medications are available through chest clinics complying with the Standards for Ambulatory or Outpatient Tuberculosis Control (N.J.A.C. 8:58-1.1). Private physicians who have reported or suspect a case and who wish to retain responsibility for therapy may make arrangments for their patients to obtain antituberculosis medications by phoning Tuberculosis Services at (609) 292-7100.

CONSULTATION

Medical consultation can be obtained by contacting the Director of Tuberculosis Services. Consultation on nursing or management problems also can be obtained by phoning 609-292-7100, and contacting the New Jersey State Department of Health, CN 360, Trenton, NJ

Medical consultation also is available from the pulmonary medicine departments of general hospitals, and from the chest physician in many of the chest clinics throughout the State.

REFERENCES

1. Joint Statement of the American Thoracic Society and the Centers for Disease Control: Guidelines for short-course tuberculosis chemotherapy. Am Rev Respir Dis 121:611-614, 1980,

2. Followup on guidelines for short-course tuberculosis chemotherapy. Morbidity and Mortality Weekly Report 29:183-189, 1980,

3. Johnston RF, Wildrick KH: The impact of chemotherapy on the care of patients with tuberculosis. Am Rev Respir Dis 109:636-664,

4. Glassroth J, Robins AG, Snider DE Jr.: Tuberculosis in the 1980s. N Engl J Med 302:1441-1450, 1980.

5. Wolinsky E: Nontuberculous mycobacteria and associated diseases. Am Rev Respir Dis 119:107-159, 1979.

6. Davidson PT: The management of disease with atypical mycobacteria. Clin Notes Respir Dis 18:3-13, 1979.

216th Annual Meeting May 14-17, 1982

Friday, May 14, 1982

3:00 p.m.-Board of Trustees' Meeting

5:00 p.m.—Delegate Registration

Saturday, May 15, 1982

7:30 a.m.-Delegate Registration

9:00 a.m.-House of Delegates

9:00 a.m.-Message Center Opens; Scientific, Informational, and Insurance Exhibits Open; Auxiliary Arts and Hobbies Open; AMA-ERF Boutique Opens

10:00 a.m.-Auxiliary Pre-Convention Board Meeting

11:30 a.m.—Auxiliary Brunch

12:00 noon-Golden Merit Award Ceremony followed by

Reception for Award Recipients 1:00 p.m.—Reference Committee Meetings:

"A," "B," "C," "D," "E,"

"F," "G." "H." Constitution and Bylaws

6:00 p.m.-JEMPAC Wine and Cheese Reception

Sunday, May 16, 1982

7:00 a.m.-JEMPAC Breakfast

8:00 a.m.-Registration Opens

8:30 a.m.—Scientific Session on Surgery, Oncology, Clinical Pathology

9:00 a.m.-Message Center Opens, Scientific, Informational, and Insurance Exhibits Open; Auxiliary Arts and Hobbies Open; AMA-ERF Boutique Opens; Auxiliary

General Session 9:00 a.m.-Scientific Sessions

Allergy; Chest Diseases; Cardiovascular Diseases; Emergency Medicine; Family Practice; Medicine; Orthopaedic Surgery; Pediatrics, Psychiatry

10:00 a.m.-Meeting-NJ Academy of Ophthalmology and Otolaryngology

11:30 a.m.—Meeting-NJ Committee on Trauma

11:30 a.m.-Luncheons: NJ Dermatological Society; NJ Society

of Anesthesiologists; NJ Society of Physical Medicine and Rehabilitation

12:00 noon-Luncheons: NJ Medical Women's Association; Oncology Society of NJ 1:00 p.m.-Luncheons: NJ Chapter, American College of Chest

Physicians; President's Auxiliary

1:00 p.m.-Scientific Sessions

Spencer T. Snedecor Trauma Oration; New Jersey Women's Association; Anesthesiology; Dermatology; Gastroenterology and Proctology, Clinical Pathology; Neurosurgery and Neurology; Nuclear Medicine, Radiology; Obstetrics and Gynecology, Urology; Ophthalmology; Otolaryngology; Physical Medicine and Rehabilitation; Plastic and Reconstructive Surgery; Rheumatism

3:00 p.m.-Meeting, Widows and Orphans Society

4:00 p.m.—Annual Meeting—Board of Governors of MIIE

6:30 p.m.-Inaugural Reception

8:00 p.m.-Inaugural Dinner-Dance

Monday, May 17, 1982

6:30 a.m.—Essex County Breakfast Caucus

6:30 a.m.—Union County Breakfast Caucus

8:00 a.m.-Registration Opens

8:00 a.m.-Auxiliary County Presidents' Breakfast

9:00 a.m.-Message Center Opens; Scientific, Informational, and Insurance Exhibits Open 9:00 a.m.-House of Delegates (to consider Reference Commit-

tee reports) 10:00 a.m.-Auxiliary Post-Convention Board Meeting

12:00 noon-Scientific, Informational, and Insurance Exhibits Close; Auxiliary Arts and Hobbies Close; AMA-ERF Boutique Closes

12:00 p.m.-House of Delegates adjourns for lunch

1:30 p.m.-House of Delegates reconvenes

4:00 p.m.-House of Delegates adjourns

5:00 p.m.-Board of Trustees' meeting



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Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY-David C. Lung, M.D., 273 Sunrise Blvd., Williamsville, NY 14221. China Medical (Taiwan) 1974. Board eligible. Group or partnership. Available July 1982,

Kung-Ho Liu, M.D., 1935-27C Eastchester Rd., Bronx, NY 10461. National Univ. (Taiwan) 1964. Board eligible. Group, partnership, solo. Available July 1982.

S.K. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Partnership or group. Available.

CARDIOLOGY-Gerald I. Myers, M.D., 6324 Alderson Street, Pittsburgh, PA 15217. Temple 1976. Also, general internal medicine. Board certified (IM). Group or partnership. Available.

N. Iyengar, M.D., 142 Hawkins Ave., Parsippany, NJ 07054. Mysore (India) 1971. Group, partnership, single, multiple specialty. Available.

V. Srinivasan, M.D., 353 E. 17th St., Apt. 22A, New York, NY 10003. Madras (India) 1975. Board certified (IM). Solo, group, partnership, other. Available July 1982

Walter P. Paladino, M.D., 163 Carr Street, Providence, RI 02905, Einstein 1977, Also, general internal medicine. Board certified (IM). Group or partnership. Available July

Mohammad Riaz, M.D., 853 Avenue Z, Brooklyn, NY 11235. Khyber (Pakistan) 1971. Board eligible. Group or partnership. Available July 1982.

Narendra T. Agrawal, M.D., 502-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Also, general internal medicine. Board eligible. Associate, partner, hospital-based clinic. Available.

FAMILY MEDICINE-Leslie Lynn Pawson, M.D., 19236 Bryant Street, Apt. 13, Northridge, CA 91324. McMaster (Canada) 1979. Board eligible. Group. Available August 1982.

GASTROENTEROLOGY-Bruce J. Langner, M.D., 12 Cedar Pond Drive, Apt. 9, Warwick, RI 02886. Guadalajara (Mexico) 1976. Board eligible. Group or partnership (IM and gastroenterology.) Available July 1982.

Jeffrey J. Kutscher, M.D., 435 East 70th Street, New York, NY 10021. Case Western 1977. Also, general internal medicine. Board certified (IM). Group, partnership, solo, institutional. Available June 1982

Kannappan Mohan, M.D., 380 N. Broadway, Yonkers, NY 10701. Madurai Medical (India) 1973. Board certified (IM). Solo or partnership. Available July 1982.

Mathew K. Kandathil, M.D., 94 Village Lane, Branford, CT 06405. Grant (India) 1974. Also, general internal medicine. Board certified (IM). Group, partnership, associate. Available July 1982

Muhammad A. Nyazee, M.D., 1650 Selwyn Avenue, Bronx, NY 10457. Also, general internal medicine. Board certified (1M). Solo/group practice, partnership, academic (gastroenterology). Available July 1982.

HEMATOLOGY/ONCOLOGY-Michael Willen, M.D., 164 Homestead Avenue, Albany, NY 12203. New York Medical 1976. Also, general internal medicine. Board certified (1M). Board eligible. Group or partnership. Available July 1982.

Douglas Faig, M.D., 3450 Wayne Avenue, Apt. 23-D, Bronx, NY 10467. NYU 1976. Also, general internal medicine and blood banking. Board certified (1M). Board eligible. Group or partnership. Available July 1982.

INDUSTRIAL MEDICINE-Albert Abraham, M.D., 11 Cromwell Drive, Convent Station, NJ 07961. New York University. Board certified (1M). Medical directorship (preferably in or near Morris County). Available.

INFECTIOUS DISEASES-Alan Lin-Greenberg, M.D., 353 East 17th St., 10B, New York, NY 10003. Albany Medical 1975. Board certified (IM). Group or academic. Available July 1982.

INTERNAL MEDICINE-Randolph J. Swiller, M.D., 182-11 Henley Road, Jamaica Estates, NY 11432. Chicago 1972. Board eligible. Group or partnership. Available.

Harish N. Nagarsheth, M.D., 12 Marlboro Court, Maywood, NJ 07607. Seth (India) 1975. Subspecialty, cardiology. Board eligible. Hospital-based solo, partnership, group. Available July 1982.

Raymond Cogen, M.D., 1742-A Kendrick Street, Philadelphia, PA 19152. Hahnemann 1978. Board eligible. Private practice, partnership, salaried position with one or more physicians. Available.

Andrew Rashkow, M.D., 208 Greta Street, West Haven, CT. Graz (Austria) 1978. Board eligible. Group, solo, partnership. Available July 1982.

Richard A. Balter, M.D., Division of General Internal Medicine, Georgetown University Hospital, 3800 Reservoir Road, NW, Washington, DC 20007. NYU 1978. Board eligible. Partnership or group. Available July 1982.

Jerome R. Weiner, M.D., 6045 Spender Avenue, Bronx, NY 10471. Mount Sinai 1977. Subspecialty, pulmonary medicine. Board certified. Solo or group private practice in pulmonary diseases. Available July 1982.

Kabul S. Garg, M.D., 129 York Street, Apt. 6-M, New Haven, CT 06511. Patiala (India) 1972. Subspecialty, cardiology. Solo or group practice. Available July 1982.



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Kannappan Mohan , M.D., 380 N. Broadway, Yonkers, NY 10701, Madurai Medical (India) 1973, Subspecialty, gastroenterology, Board certified (IM), Solo or partnership, Available July 1982.

Mukesh N. Mathur, M.D., 853 Avenue Z, Brooklyn, NY 11235. Rajasthan (India) 1976. Board eligible. Group, partnership, solo. Available.

Alan Lin-Greenberg, M.D., 353 East 17th St., 10B, New York, NY 10003. Albany Medical 1975. Subspecialty, infectious diseases. Board certified (IM). Group or academic. Available July 1982.

Jitemdra C. Shah, M.D., 288 Bay 38th St., 6D, Brooklyn, NY 11214. Seth G.S. Medical (India) 1974. Subspecialty, pulmonary medicine. Board certified (IM). Hospitalbased or group. Available July 1982.

N. Iyengar, M.D., 142 Hawkins Ave., Parsippany, NJ 07054. Mysore (India) 1971. Subspecialty, cardiology. Group, partnership, single, multispecialty group. Available.

V. Srinivasan, M.D., 353 E. 17th St., Apt. 22A, New York, NY 10003. Madras (India) 1975. Subspecialty, cardiology. Board certified (IM). Solo, group, partnership, other. Available July 1982.

Linda S. Alexander, M.D., 3901 Conshohocken Avenue, Apt. #277, Philadelphia, PA 19131. Hahnemann 1978. Group, partnership, HMO. Available July 1982.

Krishan M. Mathur, M.D., 64-B Brighton Court, Brooklyn, NY 11235. SMS Medical, Jaipur (India) 1976. Board eligible. Group or partnership. Available July 1982. Arthur C. Tutela, M.D., 132 Midland Place, Newark, NJ 07106. Bologna (Italy) 1974. Also, general medicine. Group, partnership, clinic, institution. Available.

Muhammad A. Nyazee, M.D., 1650 Selwyn Avenue, Bronx, NY 10457. Nishtar (Pakistan) 1974. Subspecialty, gastroenterology. Board certified. Solo/group practice, partnership, academic (gastroenterology). Available July 1982.

Thomas A. Neef, M.D., P.O. Box 3249, York, PA 17402. Georgetown 1975. Board eligible. Solo, associate, group. Available. Harry N. Brandeis, M.D., Ten Overlook Road, Apt. 51, Summit, NJ 07901. Bologna

Road, Apt. 51, Summit, NJ 07901, Bologna (Italy) 1979. Board eligible. Group, partnership, solo. Available July 1982.

Narendra T. Agrawal, M.D., 503-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Subspecialty, cardiology. Board eligible. Associate, partner, hospitalbased clinic. Available.

Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034, GSMC (India) 1976. Subspecialty, pulmonary medicine. Group or solo (hospital-based). Available July 1982.

NEUROLOGY—James C. McVeety, M.D., 7740 Camino Real, Miami, FL 33143.

Bologna (Italy) 1975. Also, general internal medicine. Board certified (IM). Any type practice. Available June 1982.

Stuart R. Stark, M.D., 12309 Featherwood Dr., Apt. 42, Silver Spring, MD 20904. Maryland 1978. Group or partnership. Available July 1982.

OBSTETRICS/GYNECOLOGY—Rodger A. Fraser, M.D., 109 Scott Street, Joliet, IL 60431. Howard 1974. Board eligible. Solo, group. Available June 1982.

Dorit Yabrov, M.D., 70 Roper Rd., Princeton, NJ 08540. Leningrad (Russia) 1961. Group, partnership, outpatient clinic, abortion clinic. Available.

Yvonne S. Thornton, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/foetal medicine. Board certified (both). Partnership or group (single specialty), Morris or Middlesex counties preferred. Available August 1982.

Ibrahim Beruti, M.D., 1236 Napoleon Street, Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified. Solo. Available.

OPHTHALMOLOGY—Florence S. Lee, M.D., 676 Kent Avenue, Teaneck, NJ 07666. SUNY-Downstate 1976. Board certified. Partnership or group. Available.

OTOLARYNGOLOGY—Arnold I. Charow, M.D., 6 Country Club Drive, Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.) Available.

PATHOLOGY—Vasundhara G. Untawale, M.D., 281 Farmingdale Rd., Wayne, NJ 07470. India, 1972. Board eligible. Hospital. Available July 1982.

Parbati Basu, M.D., 3400 Henry Ave., Philadelphia, PA 19129. N.R.S. (India) 1975. Board eligible. Any type practice. Available July 1982.

PEDIATRICS—Robert G. Dorr, M.D., 753 Montclair Street, Pittsburgh, PA 15217. Maryland 1979. Board eligible. Group. Available July 1982.

Daryl H. O'Brien, M.D., 2808 Omah Street, Durham, NC 27705. Dartmouth 1979. Board eligible. Group or partnership. Available July 1982.

Yashaswini H. Shah, M.D., 165 Lynch Rd., Middletown, NJ 07748. M.S. University (India) 1974. Board eligible. Group, partnership, solo. Available.

PULMONARY DISEASES—Somnath N. Naik, M.S., 288 Bay 38 Street, Apt. 5-U, Brooklyn, NY 11214. Seth G.S. (India) 1976. Also, general internal medicine. Board certified (IM). Any type practice. Available July 1982.

Jitemdra C. Shah, M.D., 288 Bay 38th St., 6D, Brooklyn, NY 11214. Seth G.S. Medical (India) 1974. Board certified (IM). Hospital-based or group. Available July 1982.

Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Also, general internal medicine. Group or solo, hospital-based. Available July 1982.

SURGERY, GENERAL—Robert C. Kahn, M.D., 2516 North 4th Street, Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available July 1982.

Lawrence W. Silvers, M.D., 1350 West Bethune Avenue, Apt. 2002, Detroit, MI 48202. Albany 1976. Also, vascular surgery. Board eligible. Group or partnership, with medical school affiliation. Available July 1982.

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Milan (Italy) 1972. Also colon and rectal surgery. Group or partnership. Available July 1982.

SURGERY, ORTHOPEDIC—Mark M. Kramer, M.D., 3450-12 Wayne Avenue, Bronx, NY 10467. Vanderbilt 1976. Board eligible. Private practice. Available.

SURGERY, VASCULAR—Ahmed I. Khan, M.D., 5627 North 16th Street, Apt. H-8, Phoenix, AZ 85016. Dacca (Bangladesh) 1972. Also, general surgery. Any type practice. Available.

Lawrence W. Silvers, M.D., 1350 West Bethune Avenue, Apt. 2002, Detroit, MI 48202. Albany 1976. Also, general surgery. Board eligible. Group or partnership, with medical school affiliation. Available July 1982.

UROLOGY—Dilip R. Patel, M.D., 483 Ocean Parkway, Apt. 4-B, Brooklyn, NY 11218. Baroda (India) 1973. Board eligible. Any type practice. Available.

Alexander M. Pagnani, M.D., 3510 Avenue H. Apt. 2-B, Brooklyn, NY 11210. Guadalajara (Mexico) 1976. Board eligible. Any type practice. Available July 1982.

Ramesh K. Chopra, M.D., 1920 S. First St., Minneapolis, MI 55454. Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available August 1982.

Frederick Greenstein, M.D., 732 E. 91st St., Brooklyn, NY 11236. Downstate Med. 1972. Board eligible. Group, partnership, academic, solo. Available July 1982.

Tung-Hua Chieng, M.D., 190 Mineola Boulevard, Apt. 4-N, Mineola, NY 11501: Taiwan 1973. Board eligible. Group, partnership, solo. Available July 1982.

H.S. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Group, partnership, solo. Available July 1982.

LETTERS TO THE JOURNAL

Internal Medicine: A Cognitive Specialty

December 30, 1981

Dear Sir:

At a recent regional meeting of the American College of Physicians and the New Jersey Society of Internal Medicine at the Meadowlands Hilton, a panel discussion by Dr. Roger O. Egeberg, Director, Office of Professional and Scientific Affairs of the Health Care Financing Administration, Washington, D.C. and Dr. C. Burns Roehrig, Trustee, ASIM of Boston, was held and moderated by Dr. Emanuel Abraham, Past President and Council Member of NJSIM and the Board of Trustees of the American Society of Internal Medicine.

The panel discussed "Reimbursement for Physician's Cognitive and Procedural Services." Putting a price tag on the value of physician services always has been difficult and complex. Before the advent of health insurance on a large scale, fees usually were worked out between the physician and patient, without government or third-party intrusion. Physician's cognitive services involve the application, based on knowledge and experience, of such skills as data gathering and analysis, planning, management, decision making, and judgment relating to the prevention, diagnosis, and treatment of health problems and communication of such information to the patient. Historically, these "thinking" services have been reimbursed at a much lower rate than the technical procedures physicians also provide. It is self-evident that the application of procedures totally is dependent upon the initial cognitive skill of deciding "What is wrong with the patient." Unfortunately, the historical inequity in reimbursing for cognitive services has resulted in a system that fails to recognize the importance of physicians' thinking function. ASIM and NJSIM are trying to educate third-party health insurance payers, physicians, and patients of the importance of cognitive (thinking) versus procedures (doing),

The topic, "Cognitive Skill Versus Procedural Skill," has been receiving national attention by third-party payers since ASIM published its *White Paper* in January, 1981, on "Reimbursement for Physician's Cognitive and Procedural Services,"

Physicians need to take a fresh look at the way in which they deliver their professional services with greater emphasis on cognitive skills.

Respectfully submitted, (signed) Frank J. Malta, M.D. Immediate Past President New Jersey Society of Internal Medicine

Appeal: Publications on Grief and Bereavement

December 31, 1981

Dear Dr. Krosnick:

The purpose of this letter is to solicit your support and that of your readers for a most worthwhile project and endeavor.

Since the establishment of the State of Israel in 1948, there have been continuous periods of armed conflict between Israel and her neighboring states, leaving in their wake a considerable number of bereaved parents, widows, and orphans. One of the first laws passed by the Parliament of the State of Israel established the rights of pension for and rehabilitation of the dependent parents, widows, and orphans of soldiers killed or deceased as the result of their service in the Israeli Armed Forces. The Department of Rehabilitation was set up in the Ministry of Defense in order to carry out these responsibilities. Regional offices were established in various parts of Israel and staffed by trained social workers to advise and help the members of the bereaved families in dealing with their problems of grief and bereavement.

In order to help this staff maintain an up-to-date status in their academic know-how, it was decided to set up a Reference Library on Grief and Bereavement within the Department of Rehabilitation, to make available to the staff theoretical and practical knowl-

edge, information, and experience that have been reported on or written about in various scientific and other publications related to the subject of the effect of death on the individual. This Library is open to all interested persons throughout the world.

On behalf of Yehuda Ben Chorin, Director of the Reference Library on Grief and Bereavement, I turn to you and your readers for cooperation in developing the Library's holdings, scope, and activity. The Library is interested in obtaining one or more copies of all publications pertaining to the subject of grief and bereavement and the effect of death on the person. Any publications your readers have knowledge of and any suggestions that would help the Reference Library in its work would be greatly appreciated. At intervals, the Reference Library plans to publish a list of recent acquisitions; this list will be sent to organizations and institutions who are interested in this field of activity, both in Israel and in foreign countries. Various organizations and educational institutions in the United States have been of inestimable assistance.

All publications can be shipped directly to the Library by addressing shipment to: Mr. Yehuda Ben Chorin, Director, Reference Library on Grief and Bereavement, Department of Rehabilitation, Ministry of Defense of the State of Israel, 53 Petach Tikva Road, Tel Aviv, Israel 67 138.

Alternatively, publications can be sent to me, for transhipment to the Library. My address is 848 West State Professional Building, Trenton, NJ 08618. Of course, the Reference Library always is in need of monetary contributions to assist it in purchasing technical materials and publications on all phases of family life and treatment methods.

Readers are requested to please advise me if one is interested in having one's name added to the mailing list of the Reference Library or to communicate with me if one wishes further informa-

(signed) Morton Dietz

LETTERS OF INTEREST

Grant Request for Foundation of UMDNJ*

January 4, 1982

Dear Dr. Greifinger:

The Medical Society of New Jersey is due a stewardship letter and a copy of the Foundation's annual report at this time. Before commenting on the report itself, which you have received, I want to take this opportunity to thank you, on behalf of the Trustees of the Foundation, for the Medical Society's contribution of \$50,000 which has helped to make this progress possible.

You will find in the annual report complete information on the Foundation's income, expenses, and grant programs for the fiscal year, 1980-81. It was another successful year, with over \$1 million received in new gifts and pledges and, for the first time, the annual grants program exceeded \$1 million. Cash received from contributions totaled \$1,530,765 and investment income yielded \$1,015,291.

The Foundation's overhead costs continued to be a very low 4 percent of funds raised. Grants were made for Educational Enrichment, Research, Community Health Projects, Student Assistance, and New Ventures in Health Care.

Seed research grants, made to young faculty, resulted in additional awards from federal sources totaling \$1.8 million. We are confident these awards would not have been secured without the early data yielded from the seed grants.

Results from research awards included the development and testing of a material that promises to function effectively as a replacement for human cartilage, and a system of bonding antibiotics to the synthetic materials used in bypass surgery, thereby dramatically reducing the risk of infection. Promising results also were achieved in human molecular genetic research disclosing critical information on the hereditary causes of certain bone diseases and dia-

betes, and a recombinant DNA/cancer research project is providing a means to grow antibodies for several forms of cancer.

In addition to continuing the student interest-free loan program, the Foundation, for the first time, was able to award merit scholarships and, thus, attract outstanding candidates. The Foundation again funded visiting professorships and helped to underwrite several conferences bringing to New Jersey distinguished medical experts from other parts of the nation and the world.

During the past year, the University established a new Department of Community and Environmental Medicine at its Rutgers Medical School, implementing the institution's decision to assume a major role in occupational health. The Foundation provided funding for the development of this department, which will train specialists in occupational medicine and render health services to New Jersey business. We expect to increase support for this program over the next few years.

The Foundation's grants do not relieve the state of its responsibility to meet the cost of operating the University; rather, they provide funding in areas for which state support cannot be expected. In addition to continuing the discretionary grants program, the Foundation now has undertaken to seek designated support for several projects as top priorities as it enters its second decade.

The Board has been strengthened by the addition of Arthur E. Imperatore, Chairman of A-P-A Transport Corporation; Harold W. Sonn, President of Public Service Electric & Gas Company; Thomas J. Stanton, Jr., Chairman of First Jersey National Bank; Charles L. Whigham, Chairman and President of City National Bank of New Jersey; and Joseph D. Williams, President of Warner-Lambert Company.

Once again, I want to say how very much we appreciate the Medical Society's continued interest and support of our programs, and we hope that you will be pleased with this report of the Foundation's performance.

(signed) David J. Sherwood Chairman Foundation, UMDNJ

January 14, 1982 Dear Dr. Greifinger, M.D.:

At the January 6, 1982, meeting of the New Jersey Association of Medical Specialty Societies, the issue of the UMDNJ Foundation soliciting a \$100,000 contribution from the Medical Society of New Jersey was discussed. I was directed by that body, in a unanimously supported motion, to convey to you and the Board our collective concern regarding this request.

We urge the Board to decline to contribute to the Foundation on the grounds that a nonprofit, dues-supported professional organization should not as a matter of sound fiscal policy support any charitable group financially, no matter how laudable it seems. It is suggested instead that an appropriate mechanism of MSNJ support could be the suggestion, to the individual membership, that they support the Foundation. We would be grateful if the members of the Board of Trustees were advised of our concern.

(signed) Paul C. Smilow, M.D.
President
New Jersey Association of
Medical Specialty Societies

December 23, 1981

Dear Dr. Greifinger:

At the meeting of the Board of Trustees of the New Jersey Medical Society on December 20, 1981, I heard of a request by the Foundation of the College of Medicine and Dentistry of New

*MSNJ Board of Trustees contributed \$50,000 to the Foundation of UMDNJ during the past five years; they voted down a motion for a new grant on January 17, 1982. The issue will come before the House of Delegates at the annual meeting.

Jersey to increase the donation by the Medical Society from \$50,000 to \$100,000 over the next five years.

I personally was astonished by the request and took it home and discussed it at a meeting of the Executive Committee of the Somerset County Medical Society. In the short time available I also checked with some of the members about their opinion.

We feel that an organization that raises its operating capital by collecting dues should not use this money as a donation to any cause, no matter how worthwhile. It is this kind of financial irresponsibility that makes it difficult to recruit new members.

I hope you will consider our opinion in your deliberations.

(signed) A.M. Doswald, M.D.
President
Somerset County Medical Society

December 23, 1981 Dear Dr. Greifinger:

I am writing on behalf of the Board of Directors and the membership of the New Jersey Orthopaedic Society to oppose the request of the Foundation of the College of Medicine and Dentistry of New Jersey for a \$50,000 to \$100,000 contribution

The New Jersey Orthopaedic Society does not question the important work of this Foundation, nor does it question any of the functions or activities of the Foundation. We do believe strongly that it is inappropriate for a dues-collecting organization such as the Medical Society of New Jersey to direct any of its member's dues toward a charity. It is not the function of the Medical Society to determine which charities our members shall support.

There are many other worthy charities

that could make a call upon our funds. If the Board and officers of the Medical Society of New Jersey feel strongly that any organization is worthy of the financial support of our membership, then this should be recommended to the membership for their private and personal contributions. Under no circumstances should a contribution, particularly a substantial contribution, be made with membership funds.

We strongly urge that the Board of Trustees of the Medical Society of New Jersey relay to the Foundation of the College of Medicine and Dentistry of New Jersey that we support its purposes, goals, and aims, but that we cannot provide financial support.

(signed) Stuart A. Hirsch, M.D.
Secretary
New Jersey Orthopaedic Society

PERSONAL ITEMS

Dr. Garber Receives Leadership Award

The National Association of Private Psychiatric Hospitals (NAPPH), head-quartered in Washington, D.C., presented its Presidential Award for outstanding contribution in the field of Leadership in Psychiatry to Robert S. Garber, M.D., during the association's annual meeting.

Dr. Garber is Vice-Chairman and Senior Consultant, Board of Trustees, for the Carrier Foundation, New Jersey's largest private psychiatric hospital. Between September, 1973, and November, 1981, Dr. Garber was President of the Carrier Foundation (known as the Carrier Clinic until its change to nonprofit status in 1977). Previously, he was Medical Director of the Carrier Clinic (1958-73).

Dr. Garber, a member of our Somerset County component, has been a Diplomate of the American Board of Psychiatry and Neurology since 1947,

and a Fellow of the American Psychiatric Association since 1954, and a Life Fellow since May, 1979. He is a former President of the American Psychiatric Association (1970-71) and a former President of the Group for Advancement of Psychiatry (1965-67).

Dr. Musgnug Receives Certificate of Merit

Richard H. Musgnug, M.D., of Medford Lakes, has won a Certificate of Merit in the Kodak International Newspaper Snapshot Awards. His photograph was on display in New York City at the Equitable Gallery.

Dr. Musgnug's photograph was a color picture of a Christmas decoration—a golden wire sculpture of angels with

trumpets—taken at Rockefeller Center, New York City. In addition, the photograph was a winner in the Camden Courier-Post's summer snapshot contest

A member of our Camden County component, Dr. Musgnug has had many of his photographs on covers of *The Journal*.

Dr. Rineberg Named Chairman

Bernard A. Rineberg, M.D., has been elected Chairman of the Board of Councilors of the American Academy of Orthopaedic Surgeons for 1982. Dr. Rineberg has been a member of the Board of Directors of the Academy for the past two years and will continue to serve on the Board. The Board of Councilors is an advisory and representative body with approximately 90 members.

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ORTHOPAEDIC SECTION
THE NEW JERSEY ORTHOPAEDIC SOCIETY
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The meeting will focus on general orthopaedics.

For further information contact:

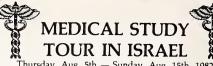
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CME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry. For information on accreditation, please contact the sponsoring organization(s), indicated by italies—last line of each item.

CARDIOLOGY

Apr.

7 Cardiac Support Devices: The Percutaneous Balloon Pump

The Role of Two-Dimensional Echocardiography in Cardiac Diagnosis 10 a.m.-12 noon—Saint Michael's Medical Center, Newark (Saint Michael's Medical Center and AMNJ)

3 Cardiomyopathy 9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

Etiologies of Myocardial Necrosis and Ischemia 11 a.m.-12:30 p.m.—St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)

May

19 latrogenic Heart Disease 9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

MEDICINE (includes Family, Internal, General Medicine, and Dermatology)

Apr.

1 Medical Grand Rounds

9:30 a.m.—Newark Beth Israel Medical Center (Endocrinology Section of AMNJ)

Age Associated Diseases

8 Drug Metabolism

Biomedical Research in Aging 4-6 p.m.—Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJ)

1 Hypertensive Diseases

8 Antifungal Chemotherapy 29 Etiologies of Myocardial Necrosis and Ischemia

11 a.m.-12:30 p.m.—St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)

Medical Grand Rounds

11:30 a.m.—College Hospital, Newark (Endocrinology Section of AMNJ)

2 Malasorption

12 noon—Freehold Area Hospital (AMNJ)

2 Infections in the Compromised Host 12 noon—St. Mary's Hospital, Orange (AMNJ)

2 Renal Conferences in Nephrology

16 4-5 p.m.—College Hospital, Newark

(Nephrology Society of New Jersey and Nephrology Section of AMNJ)

2 Grand Rounds

9 8:30-9:30 a.m.—United Hospitals 16 Medical Center, Newark

23 (United Hospitals Medical Center)

3 Orthopaedic Symposium

8 a.m.—Rutgers Medical School, Piscataway (AMNJ)

3 Intraocular Lens Course

8 a.m.-2:30 p.m.—Eye Institute of New Jersey, Newark (NJ Medical School)

6 Sports Medicine 8 p.m.—Burdett

8 p.m.—Burdette Tomlin Memorial Hospital, Cape May Court House (AMNJ)

7 Leukemia

10:30 a.m.—St. Mary's Hospital, Passaic (AMNJ)

7 Medical Grand Rounds

11:30 a.m.—VA Medical Center, East Orange (Endocrinology Section of AMNJ)

7 Dinner Meeting

6-9:30 p.m.—Holiday Inn, East Orange (Endocrinology Section of AMNJ)

7 Endocrine Conferences

3:30-5 p.m.—Rotates between Newark
 Beth Israel Medical Center, College

Beth Israel Medical Center, College B Hospital, Newark, and VA Medical

Center, East Orange
(Endocrinology Section of AMNJ)

7 Oxygen Injury by Biochemical and Morphometric Techniques

14 Air Pollution in New Jersey

21 Nutrition and Cancer

28 Inhalation Toxicity of Formaldehyde in Hamsters, Rats, and Mice

29 Drug Residue in Animals 3:30 p.m.—Rutgers Medical School, Piscataway

Piscataway
(UMDNJ)

8 Dermatology for the Clinician

12 noon-1 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

9 Update on Breast Cancer

23 Lymphoma Update
9-10 a.m.—Helene Fuld Medical Center,
Trenton
(Helene Fuld Medical Center)

13 Infectious Diseases

11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

14 Rheumatoid Arthritis

2 p.m.—John E. Runnells Hospital, Berkeley Heights (AMNJ)

14 Medical Treatment of Gallstones

8 Office Management of Urologic Problems in the Male 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ) 14 Gastrointestinal Fistulae 1 p.m.—Christ Hospital, Jersey City (AMNJ)

14 Update in Male Infertility 8:30-9:30 a.m.—Garden State Community Hospital, Marlton (Garden State Community Hospital and AMNJ)

15 Running Injuries 5-6:30 p.m.—Somerset Medical Center, Somerville (Somerset Medical Center and AMNJ)

16 Shock-Lung Syndrome 12 noon—Freehold Area Hospital (AMNJ)

19 Acne
12 noon-1 p.m.—Mountainside
Hospital, Montclair
(Mountainside Hospital and AMNI)

20 Parenteral Hyperalimentation 12 noon—St. Mary's Hospital, Orange (AMNJ)

 Pathophysiology of Selected Disorders in Veterinary Nephrology
 4-5 p.m.—Middlesex General Hospital, New Brunswick

(Rutgers Medical School and AMNJ)
Portal Hypertension
9:30-11:30 a.m.—Dover General
Hospital
(Dover General Hospital and AMNJ)

21 Hyperalimentation 10:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ)

21 Dermatological Conference 6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Highway 1, New Brunswick (Rutgers Medical School and A MNJ)

21 Arthritis

28 Venous Thrombosis
1-2:30 p.m.—Christ Hospital, Jersey
City
(Christ Hospital and AMNJ)

22 Lead Nephropathy and Its Implications for Gout and Hypertension 12 noon-1 p.m.—Mountainside Hospital, Montclair (Mountainside Hospital and AMNJ)

22 Case Presentations 8-10 p.m.—Overlook Hospital, Summit (NJ Gastroenterological Society and AMNJ)

26 William P. Burpeau Annual Award Dinner 6:30 p.m.—The Manor, West Orange (Urology Section of AMNJ)

27 Adrenal Diseases
11 a.m.—Greystone Park Psychiatric
Hospital
(AMNJ)

28 Cardiomyopathy: Hypertensive, Diabetic, Alcoholic, Nutritional, Postpartum 9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

28 Management of Acute Pain 1-2:30 p.m.—VA Medical Center, Lyons



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8-10 p.m.—Bergen County Medical Society, Hackensack (NJ Medical Women's Association and AMNJI

NJ Blood Bank Association Annual Meeting

28 The Psychophysiology of the Neonate

12:30-5 p.m.

AMNJ)

30 9 a.m.-4:45 p.m.—Resorts International Hotel, Atlantic City (NJ Blood Bank Association, Office of Continuing Education, UMDNJ, and

May

5 Medical Grand Rounds 11:30 a.m.-VA Medical Center, East Orange

(Endocrinology Section of AMNJ)

5 Review of Occupational Disease 1:30-2:30 p.m.—Rutgers Community Health Plan, 57 U.S. Highway 1, New Brunswick (Rutgers Community Health Plan and AMNJ)

5 Dinner Meeting 6-9:30 p.m.-Holiday Inn, East Orange (Endocrinology Section of AMNJ)

Mixed Aerobic and Anaerobic Infections 12 Latent and Concealed Infections 9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

5 Endocrine Conferences

12 3:30-5 p.m.—Rotates between Newark Beth Israel Medical Center, College

Hospital, Newark and VA Medical Center, East Orange (Endocrinology Section of AMNJ)

Medical Grand Rounds

9:30 a.m.-Newark Beth Israel Medical (Endocrinology Section of AMNJ)

6 Management of Rheumatoid Arthritis 11 a.m.-12:30 p.m.-St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical

Grand Rounds

Center and AMNJ)

8:30-9:30 a.m.-United Hospitals Medical Center, Newark (United Hospitals Medical Center)

7 Medical Grand Rounds 11:30 a.m.—College Hospital, Newark (Endocrinology Section of AMNJ)

7 Morbid Obesity 12 noon-Freehold Area Hospital (AMNJ)

7 Septic Arthritis 12 noon-St. Mary's Hospital, Orange

Renal Conferences in Nephrology

21 4-5 p.m.—College Hospital, Newark (Nephrology Society of NJ and Nephrology Section of AMNJ)

11 Hypertension II a.m.—Greystone Park Psychiatric Hospital (AMNJ)

12 Hematuria 2 p.m.-John E. Runnells Hospital, Berkeley Heights (AMNJ)

12 Lupus Nephritis 7:30-8:30 p.m.-Ramada Inn, Clark (The Nephrology Society of NJ and AMNJ)

13 Prostaglandins, Platelets, Thrombosis and Antiplatelet Agents 12 noon-1 p.m.-Mountainside

Hospital, Montclair (Mountainside Hospital and AMNJ)

Diabetic Acidosis and Hyperosmolar Coma 12 noon-St. Mary's Hospital, Orange (AMNJ)

18 Effect of Charge on Immune Complex Localization on the Glomerular Basement

4-5 p.m.-Middlesex General Hospital, New Brunswick

(UMD-Rutgers Medical School and AMNJ)

Drug Reactions and Interactions 9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and Medical Center and AMNJ)

Rutgers Dermatological Conference 6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Highway 1, New Brunswick (UMDNJ and AMNJ)

Rheumatic Diseases in the Elderly 19

Small Cell Bronchogenic Carcinoma 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

21 Gout 12 noon-Freehold Area Hospital (AMNJ)

25 Peripheral Vascular Disease 11 a.m.-Greystone Park Psychiatric Hospital (AMNJ)

Cytochemistry in the Classification of Leukemia and Lymphoma 6:30-10 p.m.-Coachman Inn, Cranford (NJ Blood Club and AMNJ)

NEUROLOGY/ PSYCHIATRY

Encephalopathies: Organic Causes of Psychiatric Presentations

Gilles de la Tourette Syndrome 12 noon-1 p.m.-Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

Psychiatric Lecture Series

16 1:30-5 p.m.—Trenton Psychiatric

23 Hospital

30 (Trenton Psychiatric Hospital and AMNJ)

5 Seminar in Psychotherapy 8:30-10:30 p.m.-Claridge House II Apt. 10N East, Verona (NJ Psychoanalytic Society and AMNJ)

Drug Abuse in an Adolescent Boy as a Defense against Homosexuality 8-10 p.m.-9 Marquette Road, Upper Montelair (Essex Psychiatric Seminar and AMNJ)

Mechanisms in Nitrosamine Carcinogenesis 3:30 p.m.—Rutgers Medical School, Piscataway (UMDNJ)

Psychiatric Case Conference

13 7:30-9:30 a.m.—Trenton Psychiatric

20 Hospital

27 (Trenton Psychiatric Hospital and AMNJ)

7 Anxiety and Depression 1:30-2:30 p.m.—57 U.S. Highway 1, New Brunswick (Rutgers Community Health Plan and AMNII

7 Child Psychiatry Case Conferences

14 8:30-10:30 a.m.—Trenton Psychiatric

21 Hospital

(Trenton Psychiatric Hospital and AMNJ)

Grand Rounds in Psychiatry 1:30-3 p.m.—NJ Medical School, (UMDNJ and AMNJ)

Color in Dreams of the Colorblind 8-10 p.m.—St. Barnabas Medical Center, Livingston (NJ Psychoanalytic Society and AMNJ)

14 Neuropsychological Testing 1:30-3:30 p.m.—Trenton Psychiatric Hospital (Trenton Psychiatric Hospital and AMNJ)

19 Clinical Problems in Child Psychotherapy 8:30-10:30 p.m.-301 Broad Ave, Englewood

(NJ Psychoanalytic Society and AMNJ)

21 Biofeedback

28 Use of Unconscious Process in Psychotherapy 1-3 p.m.—Ancora Psychiatric Hospital, Hammonton (Ancora Psychiatric Hospital and AMNJ)

21 Violent and Aggressive Adolescents and Young Adults 8:15-10 p.m.—Ramada Inn, Clark (NJ Council of Child and Adolescent Psychiatry, Tri-County Psychiatric Chapter of the NJ Psychiatric

Association, and AMNJ)

22 Psychoendocrinological Approaches to Psychiatric Disorders 10:30 a.m.-12 noon-NJ Medical School, Newark (UMDNJ and AMNJ)

23 Demystifying DSM 111 9 a.m.-4 p.m.-Ramada Inn, New Brunswick (Rabbinic Center for Research and Counseling)

May

3 Maternal Ambivalence and a Schizoaffective Psychosis 8-10 p.m.-199 Chittenden Road, Clifton (Essex Psychiatric Seminar and AMNJ)

3 Seminar in Psychotherany 8:30-10:30 p.m.—Claridge House II, Apt. 10N East, Verona (NJ Psychoanalytic Society and AMNJ)

Psychiatric Case Conference 11

7:30-9:30 a.m.—Trenton Psychiatric

18 Hospital

25 (Trenton Psychiatric Hospital and AMNJ)

Multiple Sclerosis 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

- 5 Child Psychiatry Case Conference
- 12 8:30-10:30 a.m.—Trenton Psychiatric
- 7 Hospital
- 26 (Trenton Psychiatric Hospital and AMNJ)
- 5 Anxiety
- 12 Adolescent Depression
- 19 Antipsychotic Drugs in Ambulatory Patients
- Psychological Interventions with Chronic Hemodialysis Patients
 1-3 p.m.—Ancora Psychiatric Hospital,

Hammonton (Ancora Psychiatric Hospital and AMNJ)

5 Grand Rounds in Psychiatry

1:30-3 p.m.—NJ Medical School, Newark

(UMDNJ and AMNJ)

6 Pseudoseizures and Differential Diagnoses

3 Excessive Daytime Sleepiness: Narcolepsy and the Hypersomnia Sleep Apnea Syndrome 12 noon-1 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

12 Dementia 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and

AMNJ)

12 Distinguished Speaker Series 10:30 a.m.-12 noon—NJ Medical School, Newark (UMDNJ and AMNJ)

17 Clinical Problems in Child Psychiatry 8:30-10:30 a.m.—301 Broad Ave., Englewood (NJ Psychoanalytic Society and AMNJ)

6 Problems in Alcoholism 9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

OBSTETRICS/GYNECOLOGY

Apr.

- 8 Sonography of High-Risk Pregnancy 8:30-9:30 p.m.—Overlook Hospital, Summit (NJ Institute of Ultrasound in Medicine and AMNJ)
- 21 Solving GYN Problems in Your Office 8:30 a.m.-2:30 p.m.—NJ School of Osteopathic Medicine, Camden (NJ School of Osteopathic Medicine and AMNJ)
- 22 Ovarian Carcinoma
- 23 6:30-8:30 p.m.—Rutgers Medical School, Piscataway (Rutgers Medical School and AMNJ)

May

12 Ovarian Carcinoma

8:30-9:30 a.m.—Garden State
Community Hospital, Marlton
(Garden State Community Hospital and AMNJ)

20 Rendezvous for Implantation

21 6:30-8:30 p.m.—Rutgers Medical School, Piscataway (UMDNJ and AMDNJ)

PEDIATRICS

۱pr.

Childhood Infectious Diseases

9 a.m.—Freehold Area Hospital (AMNJ)

Pediatric Subspecialties

8:15-9:45 a.m.—Overlook Hospital, Summit (Overlook Hospital, Columbia University College of Physicians and Surgeons, and AMNJ)

27 Sudden Infant Death Syndrome 8:30-10 a.m.—St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)

May

12 Neonatal Problems

11:30 a.m.—Columbus Hospital, Newark (AMNJ)

14 Lecture Series-Pediatric Subspecialties 8:15-9:45 a.m.—Overlook Hospital, Summit (Overlook Hospital, Columbia University College of Physicians and Surgeons, and AMNJ)

17 Metabolic Disorders Presenting as Reye's Syndrome

12 noon-1 p.m.—Mountainside Hospital, Montclair (Mountainside Hospital and AMNJ)

25 Chronic Lung Disease in Newborns 8:30-10:30 a.m.—St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)

RADIOLOGY

Apr.

1 Ultrasound, New Vistas 5:30-6:30 p.m.—Morristown Memorial Hospital (Morristown Memorial Hospital and AMNJ)

15 Topic to be announced
7:15 p.m.—Morristown Memorial
Hospital
(Radiological Society of NJ and
Diagnostic Radiology Section of AMNJ)

15 Fetal Anatomy and Invasive Techniques with Ultrasound Guidance 7:30-9:30 p.m.—Overlook Hospital, Summit (NJ Institute of Ultrasound in Medicine and AMNJ)

May

6 Skeletal Radiography 5:30-6:30 p.m.—Overlook Hospital, Summit (Overlook Hospital and AMNJ)

13 Pediatric Sonography
7:30-9:30 p.m.—Overlook Hospital,
Summi
(NJ Institute of Ultrasound in Medicine
and AMNJ)

19 Radiotherapy Section Dinner Meeting 6:30 p.m.—The Manor, East Orange (Radiotherapy Section of AMNJ)

20 Pulmonary Problems in the Older Adolescent and the Young Adult 7:15 a.m.—St. Barnabas Medical Center, Livingston (Radiological Society of NJ and Diagnostic Radiology Section of AMNJ)

66 Interventional Radiology 9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and Medical Center and AMNJ)

GENERAL SURGERY

Apr.

14 Acute Aortic Dissection 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

15 Organ Donation and Transplantation 11 a.m.-12:30 p.m.—St. Joseph's Medical Center, Paterson (St. Joseph's Medical Center and AMNJ)

21 Portal Hypertension—Surgical Approaches 9:30-11:30 a.m.—Dover General Hospital

23 Breast Cancer 7:45 a.m.—Freehold Area Hospital (AMNJ)

(Dover General Hospital and AMNJ)

May

25 Approach to the Patient With Low Back Pain 8 p.m.—Warren Hospital, Phillipsburg (AMNJ)

25 Body Imaging 8-10 p.m.—Englewood Club, Englewood (Englewood Surgical Society, Englewood Dept. of Medical Education and AMNJ)

SURGICAL SPECIALTIES (includes ENT, Neurosurgery, Ophthalmology, Orthopedic, Plastics, and Vascular Surgery)

pr.

21 Pain Syndromes of the Lumbar Spine and Lower Extremities 9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

27 Biliary Surgery 8-10 p.m.—Englewood Club, Englewood (Englewood Surgical Society, Englewood Hospital, and A MNJ)

May

5 Chronic Pain 9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and AMNJ)

5 Breast Cancer Update-1982 10 a.m.-3 p.m.—Overlook Hospital, Summit (Overlook Hospital, American Cancer Society, Columbia University Comprehensive Cancer Center, and AMNJ)

20 Medical Management Subarachnoid Hemorrhage 4-5:30 p.m.—College Hospital, Newark (UNDN) and AMNJ)

MISCELLANEOUS

Apr.

7 History of Medicine in New Jersey 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and A MNJ)

7 Emotional and Social Needs of the Aging

14 Protecting Your License to Practice Medicine 9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

- May
- 5 Malpractice

10:30 a.m.—St. Mary's Hospital, Passaic (AMNJ)

- 15 Annual Meeting
- 16 Resorts International, Atlantic City (MSNJ and AMNJ)
- 20 A Medical Enquiry into Why James Joyce Wrote As He Did or Why Does Anybody Do What He Does? 5-6:30 p.m.—Somerset Medical Center, Somerville

(Somerset Medical Center and AMNJ)

- 26 Annual Awards Dinner Meeting 6 p.m.—The Chanticler, Millburn (AMNJ)
- 27 Malpractice 11 a.m.-12:30 p.m.—St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)

OBITUARIES

Dr. Efrain Avecillas

At the untimely age of 50, Efrain Gonzalo Avecillas, M.D., a member of our Essex County component, died in January, 1982. Born in Equador in 1931, Dr. Avecillas was graduated from the University of Guayaquil, Equador, and did postgraduate training in internal medicine and cardiology at Philadelphia General Hospital, Philadelphia. At the time of his death, Dr. Avecillas was an Associate attending in internal medicine at St. Michael's Medical Center and St. James Hospital, both in Newark.

Dr. William Beall

Word has been received of the death of William Tomilson Beall, M.D., of Woodbury. Born in 1910 in Alliance, Ohio, Dr. Beall earned a medical degree at the University of Pennsylvania Medical School in 1939. During his career, Dr. Beall was affiliated with the pediatric and allergy departments at Underwood Hospital, Woodbury. An emeritus member of our Gloucester County component, he was a member of the American Medical Association and the Philadelphia Allergy Society.

Dr. Joseph Benjamin

On January 18, 1982, Joseph Francis Benjamin, M.D., died in Rockport, Texas. Born in 1905 in New Mexico, Dr. Benjamin was graduated from the University of Texas Medical School in 1932. He began private practice in obstetrics and gynecology in Ridgewood in 1932, becoming board certified in that specialty. Dr. Benjamin served as Director of

Obstetrics and Gynecology of Valley Hospital, Ridgewood, from 1951 to 1970. An emeritus member of our Bergen County component, Dr. Benjamin was a member of the American Medical Association, a Fellow of the American College of Obstetricians and Gynecologists, and a Fellow of the American College of Surgeons.

Dr. Arthur Cameron

At the grand age of 92, Arthur Edward Cameron, M.D., of Newark, died this past winter. Born in 1890 in Trinidad, Dr. Cameron earned a medical degree at Howard University in 1933. An emeritus member of our Essex County component, Dr. Cameron was a member of the American Medical Association.

Dr. Rudolph Fager

On December 31, 1981, Rudolph Os-Fager, M.D., died at his home in Boomfield, Born in 1902 in Rhode Isand, Dr. Fager earned a medical degree at Tufts Medical School in 1928. During his career, Dr. Fager was affiliated with Mountainside Hospital, Montclair, where he served as Attending Surgeon, President of the medical staff, Chairman and Trustee of the Medical Board. In 1971. Dr. Fager retired from 45 years in practice. An emeritus member of our Essex Conty component, he was a member of the American Medical Association and a Junior Fellow of the American College of Surgeons.

Dr. George Koerber

On December 24, 1981, George Koerber, M.D., died at Passaic General Hospital, Passaic. Born in 1900 in Bavaria, Germany, Dr. Koerber earned a medical degree at Columbia College of Physicians and Surgeons in 1930; he completed postgraduate training in urology at Cornell Medical School. Dr. Koerber was a staff physician at Passaic General Hospital until his retirement in 1977. An emeritus member of our Passaic County component, he was a member of the American Medical Association.

Dr. Markian Migotski

Markian Migotski, M.D., of Clifton, died on December 26, 1981, at Passaic General Hospital, Passaic. Born in 1916 in Poland, Dr. Migotski was graduated from the State University of Lvov Medical School in 1943 and emigrated to the United States in 1949. He pursued a career in ear, nose, and throat, becoming board certified in that specialty. Dr. Migotski served on the staff at St. Mary's Hospital, Passaic, and was a member of our Passaic County component, the American Medical Association, and the Ukrainian Medical Association of North America.

Dr. Oscar Race

An emeritus member of our Hunterdon County component, Oscar McClellan Race, M.D., of Flemington, died on October 9, 1981. Born in 1901, in New York, Dr. Race was graduated from Columbia College of Physicians and Surgeons in 1928. He pursued a career in pediatrics, becoming board certified in that specialty. Dr. Race served on the staff at Staten Island Hospital, New York. He was a member of the American Medical Association and a Fellow of the American Academy of Pediatrics.

Dr. Christopher Reilly

Word has just been received of the death of Christopher Joseph Reilly, M.D., of South Orange. Born in 1902, Dr. Reilly earned a medical degree at Columbia College of Physicians and Surgeons in 1928. A member of our Essex County component, Dr. Reilly was a Fellow of the American College of Surgeons and a member of the American Medical Association. During his career, Dr. Reilly was President of the medical staff and Attending Surgeon at St. Barnabas Medical Center, Livingston, and Attending Associate at Martland Medical Center, Newark.

Dr. Zelig Rosen

At the untimely age of 56, Zelig Alexander Rosen, M.D., died on January 8, 1982. Born in 1925, Dr. Rosen earned a medical degree at Long Island College of Medicine in 1947; he pursued a residency in surgery, becoming board certified in that specialty. Dr. Rosen was President of the medical staff and Chairman of the Department of Surgery at Dover General Hospital and Medical Center. Dr. Rosen was a member of our Morris County component and the American Medical Association; he was a Diplomate of the American Board of Surgery, and a Fellow of the American College of Surgeons and the International College of Surgeons. At the time of his death, Dr. Rosen was affiliated with Dover General Hospital and Medical Center, Dover, and St. Clare's Hospital, Denville.

Dr. Leslie Sooy

A member of our Gloucester County component, Leslie Thomas Sooy, M.D., died on January 19, 1982. Born in 1906,

in Atlantic City, Dr. Sooy earned medical degree from Hahnemann Col lege of Science, Philadelphia, in 1929; h interned at West Jersey Hospital Camden, before going into private practice in neuropsychiatry and interna medicine. Dr. Sooy was a member of th American Medical Association and Fellow of the American College of Angiology, the Academy of Psychosomatic Medicine, the Internationa College of Angiology, and the Psychiatric Association. He was a recipien of MSNJ's Golden Merit Award in 1976 in recognition of his 50 years as a physician.

Dr. Jeems Spradley

At the grand age of 85, Jeems Brutus Spradley, M.D., formerly of Yardley, Pennsylvania, died on January 2, 1982, in Sun City, Arizona. Born in 1896, in Texas, Dr. Spradley was graduated from the University of Texas in 1918. He pursued a career in neurology and psychiatry, becoming board certified in that specialty. Dr. Spradley served as Chief of the Department of Psychiatry and Neurology at Mercer Medical Center. Trenton, Medical Superintendent at Trenton State Hospital, Trenton, and psychiatric consultant to the New Jersey Attorney General's office and to the New Jersey Department of Law and Safety. After World War II, Dr. Spradley was designated as an examining psychiatrist at the Nuremberg Trials. An emeritus member of our Mercer County component, Dr. Spradley was a member of the American Medical Association and the American Psychiatric Society.

Dr. Bernard Venin

A member of our Hudson County component, Bernard Venin, M.D., of Jersey City, died in November, 1981. Born in 1922, Dr. Venin graduated from St. Louis University in 1948. Board certified in pediatrics, Dr. Venin was a Fellow of the American Academy of Pediatrics and the American College of Allergy; he was a member of the American Medical Association. During his career, Dr. Reilly was affiliated with The Medical Center, Jersey City, and Bayonne Hospital, Bayonne. He was an Associate Professor of Clinical Pediatrics at New Jersey Medical School, Newark.

BOOK REVIEWS

Genetics and Breast Cancer

Henry T. Lynch, M.D., Editor. New York, NY, Van Nostrand/Reinhold, 1981. Pp 253. Illustrated. (\$23.50)

The magnitude of the hereditary aspect of breast cancer becomes obvious with the realization that 20 to 25 percent of patients with breast cancer manifest a familial history. The hereditary forms of breast cancer tend to be associated with an early age of onset, bilaterality, vertical transmission, improved survival, and other malignancies. In Genetics and Breast Cancer, Dr. Lynch has synthesized the work of 14 authors to create a comprehensive study of breast cancer epidemiology. While the focus of this work is on the biostatistical-genetic approach to breast cancer epidemiology, the problem is reviewed in a multidisciplinary manner.

The most enlightening part of this volume is the brief but excellent coverage of the hereditary cancer syndromes. A strong case was made for breast cancer associated with ovarian cancer and gastrointestinal cancer. The excellent analysis of the SBLA (sarcoma. breast, brain, laryngeal, lung, leukemia, and adrenal carcinoma) syndrome was informative and should be of interest to anyone who comes in contact with the cancer patient at the family practice or subspecialty level. The discussion of Colden's syndrome (mucocutaneous disease in breast carcinoma) highlighted the fact that close to 50 percent of women with this entity will develop breast

The greatest contribution of this book is the chapter on genetic counseling and problem management. Recommendations are made for biopsy of the contralateral breast in affected women who have strong family histories of breast cancer. Additional recommendations are made concerning prophylatic mastectomies and the management of unaffected women who are members of high-risk breast cancer families. The suggestion that women from high-risk families should abstain from the use of birth control pills was of interest. A strong case is made for the development of a national cancer registry that would help identify the hereditary cancer syndromes and, thereby, effect diagnosis, management, and counseling of affected families

Genetics and Breast Cancer is worthwhile reading for physicians involved in primary care or cancer medicine.

Bernard Grossman, M.D.

The Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics

Anne R. Somers and Dorothy R. Fabian, Editors. New York, NY, Appleton-Century-Crofts, 1981. Pp 356. (\$15.95)

Anne R. Somers and Dorothy R. Fabian of UMD-Rutgers Medical School have edited a work of great importance to all physicians who deal with the elder-law

"Imperative" refers to a fact which compels attention or action, a command or obligation. In his foreword, Robert Butler points out five such imperatives: demographic, epidemiologic, cost, scientific, and cultural; these imperatives are the basis "of the new science of gerontology and the new medicine of geriatrics."

Stanley S. Bergen, Jr., summarized this multiauthored book: "To call this volume thought-provoking would be an understatement. To the many who have been caught unaware of the dramatic demographic shift we are undergoing—a worldwide shift, although this volume focuses mainly on the United States—it will be dynamite on every page. One in nine Americans now is over 65! One in every five will be that old in 50 years! What will they do? What should they be able to do? Who will take care of them? Who will pay? As Dr. Ball muses, "Can we afford the future?"

The text is divided into four parts: background, research, patient care, and education. The authors of the 24 chapters contained therein cover the breadth of the land and include a visitor from Scotland; 16 authors are from New Jersey. All are experts.

Every chapter teems with vital statistics, personal experience and opin-

ions, and direct patient care interventions:

"Initial caution and subsequent monitoring are indicated for almost all medications prescribed for the elderly."

"The physical environment—home and neighborhood—should be structured in such a way as to reduce the frequency of conditions that lead to dependency...."

"Among elderly people, one of the chief dietary imbalances is a deficient intake of protein."

"Antidepressants often are indicated for the elderly, both in depressive reactions and in depressions which are secondary to brain impairment."

"The belief that mentally ill older persons will not see a psychiatrist clearly is disputed by our experience."

"Virtually all geriatric patients found to be diabetic on entering a long-term institution are of the adult-onset type."

The Geriatric Imperative will provide the physician who treats the elderly, or who is becoming elderly, with valuable information of theoretic and practical value. I highly recommend it.

Arthur Krosnick, M.D.

Infertility—A Practical Guide for the Physician

Mary G. Hammond, M.D. and Luther M. Talbert, M.D. Chapel Hill, NC, Health Sciences Consortium, 1981. Pp 134. (\$14.95 plus \$1 handling)

This book is a compendium of methods of evaluation and treatment of infertility; the book evolved from standardized management protocols as developed at the infertility service at the University of North Carolina School of Medicine.

After a general overview of the diagnostic workup, chapters are devoted to the various "factors" in infertility (male, cervical, tubal, uterine, ovarian). These chapters are authored by experts; the chapters generally are short, concise, and practical. Discussion of physiologic background, problematic issues, and alternatives in management are precise and the reader is referred to relevant textbooks. After discussion of the infertility factors, special chapters are devoted to endometriosis and habitual

abortion. Sexual function and doctorpatient relationships in infertility situations are discussed in the final two chapters. Form sheets used by the infertility service are useful and are printed in the appendix sections. Basic references are supplied at the end of every chapter. Each chapter is followed by a short review quiz and all the answers are revealed at the end of the book.

The factual information presented by experts generally is sound. Understandably, authors present their individual approaches and methods; though these approaches usually agree with those used by other specialists, there is room for argument. For example, the uninitiated reader has to read carefully to learn that a timed endometrial biopsy is also a good (many think better) method to evaluate luteal function as compared to progesterone level measurements. The sections on tubal disease propose classifications that are not recognized widely. Certain situations deserve more emphasis, i.e., the role of male/female sperm antibodies and the luteal insufficiency problem. As a sizable number of couples (5 to 10 percent) do not have demonstrable causes of infertility, a separate discussion of this issue would have been helpful.

The book makes no claim to present an in-depth discussion or to replace text-books about infertility. Its claim is that it presents a handbook to guide the physician in the ever-enlarging maze of methods of evaluation and treatment of infertility. I believe this goal has been achieved and the reader of the book will gain a concise idea about infertility management, and will come to utilize the

book in many clinical situations.

Ekkehard Kemmann, M.D. Associate Professor UMD-Rutgers Medical School

Lifelong Sexual Vigor. How To Avoid and Overcome Impotence

Marvin B. Brooks, M.D. New York, NY, Doubleday and Co., 1981. Pp 249. (\$12.95)

In this age of consumerism the need for books that explain complex, technical matters to lay people is great; this is true for diseases that have a large psychogenic component. A book on erectile dysfunction by a well-trained urologist and his nurse-wife (with an M.A. in psychology) should constitute a major contribution. Unfortunately, this book falls short of the ideal.

The authors show commendable breadth in discussing the many factors that influence erection. They write clearly and provide a large amount of useful information

Unfortunately, there are bits of misinformation as well. In discussing penile size, the authors state that erect penises show "at most a 20 percent variation," a statement that greatly could increase the concern of some man who knows his penis is far smaller than that of a porno actor. A true hermaphrodite is described as having "the testicle of a man on one side and the ovary of a woman on the other side," creating an image of the "half man-half woman" of an old-fashioned freak show. The role of chromosomes in causing penile ab-

normalities is not discussed. It is said that diabetes mellitus "affects an estimated 10 percent of Americans," a figure far higher than most surveys have shown.

Such errors do little harm, but they raise questions about the reliability of other information and reliability is essential in a book of this sort. On top of this, careless editing has left in a reference to the "prostrate [sic] gland," (page 16) to "premartial [sic] relationships" (page 102); there are other bothersome misspellings and redundancies. A minor irritant is Dr. Brooks's frequent use of the first person singular in a book ostensibly written by two people.

The authors describe the difficulties of differentiating physical from psychological impotence but pay scant attention to current beliefs that many men have a little bit of both. They clearly are aware that couples can enjoy sexual intercourse without an erect penis, but throughout the book they indicate that satisfactory sex requires an erection. If impotent men could learn that the penis is less important than our culture has made it, their lives would be happier. and in many cases dysfunction would disappear without requiring the penile implants that Dr. Brooks recommends. Nowhere does the book touch on the particular problems of the impotent homosexual.

In summary, this is a good book to recommend to an impotent patient, but it does have certain shortcomings.

Richard J. Cross, M.D. Professor, Environmental and Community Medicine, UMD-Rutgers Medical School

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Table of Contents on Page 268



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275 PROFESSIONAL LIABILITY COMMENTARY

EDITORIALS

- 279 Visit Your Congressmen
- 280 The President of the American Cancer Society
- 281 Who Pronounces Death?
- 281 A Friend in City Hall
- 285 JEMPAC REPORTORIAL
- 286 LIFELINE PROGRAM

ARTICLES

- 291 Microsurgical Treatment of Carpal Tunnel Syndrome
 O. R. Hubschmann, M.D., F. J. Weisbrot, M.D., A. J. Krieger, M.D., Newark
- 295 Practical Considerations in the Treatment of Carpal Tunnel Syndrome Albert Davne, M.D., Trenton
- 302 Maternal Deaths in New Jersey—1980
 Gerard F. Hansen, M.D., Hackensack, and Margaret Gregory, M.D., Trenton
- 309 Early Developments in Sports Medicine Max M. Novich, M.D., Perth Amboy

THE ELECTROCARDIOGRAM

315 The Atrial Repolarization Wave and Spurious ST Segment Deviation Shashi K. Agarwal, M.D., and Jacob I. Haft, M.D., Newark

CASE REPORTS

- 319 Dissociation Between Stainable Marrow and Liver Iron Following Iron-Dextran Therapy M. Ali, M.D., A. O. Favemi, M.D., S. Laraia, V. Kasper, M.S., Teaneck
- 323 Cholesterol Pericarditis: The Third Autopsied Case in the United States with a Study of Its Histogenesis István A. Gáspár, M.D., Englewood

THERAPEUTIC DRUG INFORMATION

329 Newly Released Insulin Preparations

PEDIATRIC BRIEFS

331 Selected Abstracts with Comments

WHAT IS YOUR OPINION?

- 333 A Trip to a Subpanel Hearing Frank J. Malta, M.D., Toms River
- 335 REPORT OF THE NOMINATING COMMITTEE

DOCTORS' NOTEBOOK

- 336 Trustees' Minutes: January 17, 1982
- 338 UMD Notes
- 339 MSNJ Auxiliary
- 339 Minority Student Enrollment
- 339 Hereditary Disorders Program
 - 339 Children's Summer Camp
- 340 Physicians Seeking Location in New Jersey
- 345 CME CALENDAR
- 351 **OBITUARIES**
- 352 BOOK REVIEWS

On the Cover

Carpal tunnel syndrome, a relatively common condition, usually is characterized in the early stages by pain and paresthesia in the first three fingers. Carpal tunnel syndrome is the result of mechanical compression of the median nerve. Read our articles, beginning on page 291. Cover illustration by Elizabeth Ruggles.

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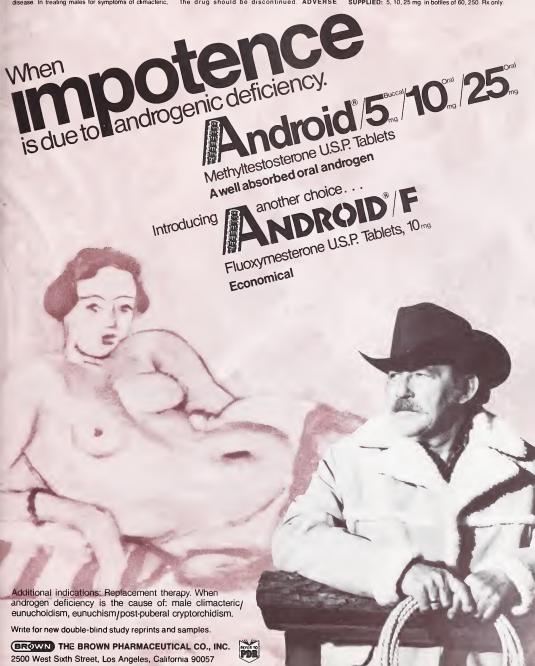
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BEFORE USING INDERAL (PROPRANOLOL HYDROCHLORIDE), THE PHYSICIAN SHOULD BE THOROUGHLY FAMILIAR WITH THE BASIC CONCEPT OF ADRENERGIC RECEPTORS (ALPHA AND BETA), AND THE PHARMACOLOGY OF THIS DRUG

CONTRAINDICATIONS

INDERAL is contraindicated in 1) bronchial asthma. 2) allergic rhinitis during the pollen season. 3) sinus bradycardia and greater than first degree block. 4) cardiogenic shock. 5) right ventricular failure secondary to pulmonary hypertension. 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL: 7) in patients on adrenergic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs.

WARNINGS

CARDIAC FAILURE Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta-blockade always carries the potential hazard of further depressing myocardial contractifity and precipitating cardiac failure. INDERAL acts selectively without abolishing the inotropic action of digitalis on the heart muscle (e.e., that of supporting the strength of myocardial contractions). In patients already receiving digitalis, the positive inotropic action of digitalis may be reduced by INDERAL angalive inotropic effect. The effects of INDERAL and digitalis are additive in depressing AV conductions.

IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure. In rare instances, this has been observed during INDERAL therapy. Therefore, at the first sign or symptom of impending cardiac failure, patients should be fully digitalized and/or given a diuretic, and the response observed closely a) in cardiac failure continues, despite adequate digitalization and diuretic therapy. INDERAL therapy should be immediately withdrawn. b) if tachyarrhythma is being ontrolled, patients should be manitained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, invocardial infaction, following abrud rescontinuation of INDERAL interapy. Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced and the patient carefully monitored in addition, when INDERAL is prescribed for angina pectors, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectors. Since coronary aftery issease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atterosclerotic heart disease, who are given proprianol for other indications.

IN PATIENTS WITH THYROTOXICOSIS, possible deleternous effects from long term use have not been adequately appraised. Special consideration should be given to propraindois potential for aggravating congestive heart failure. Propranoiol may mask the clinical signs of developing or communing hyperthyrodism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propraholol may be followed by an exacerbation of symptoms of hyperthyrodism, including thyroid storm. This is another reason for withdrawing propranoiol slowly. Propranoil of does not distort thryroid function

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg

IN PATIENTS DURING ANESTHESIA with agents that require catecholamine release for maintenance of adequate cardiac function, beta blockade will impair the desired inotropic effect. Therefore, INDERAL should be tirrated carefully when administered for arrhythmias occurring during anesthesia.

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of pheochromocytoma, INDERAL should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emergency surgery, since INDERAL is a competitive inhibitor of beta receptor agonists, its effects can be reversed by administration of such agents, e.g., isoproterenol or levarterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has also been reported.

IN PATIENTS PRONE TO NONAL LERGIC BRONCHOSPASM (e.g., CHRONIC BRONCHITS, EMPHYSEMA). INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its betaareneige blocking activity, INDERAL may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially important to keep in mind in patients with labile diabetes. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure

USE IN PREGNANCY. The safe use of INDERAL in human pregnancy has not been estab lished. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or fetus be weighed against the expected therapeutic benefit.

Embryotoxic effects have been seen in animal studies at doses about 10 times the maximum recommended human dose PRECAUTIONS

Patients receiving catecholamine depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharmacologic activity of INDERAL may produce hypotension and/or marked bradycardia resulting in verigio, syncopial attacks, or orthostatic hypotension.

As with any new drug given over prolonged periods, laboratory parameters should be observed at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function.

ADVERSE REACTIONS

Cardrovascular bradycardia, congestive heart failure intensification of AV block, hypotension, paresthesia of hands, arterial insufficiency, usually of the Raynaud type, thrombocytopenic purpura

Central Nervous System lightheadedness, mental depression manifested by insomnia, lassitude, weakness, langue, reversible mental depression progressing to catatonia, visual disturbances halfucinations; an acute reversible syndrome characterized by disorientation for time and place, short term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics

Gastrointestinal nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis

Allergic pharyngitis and agranulocytosis, erythernatous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress Respiratory, barnchospasm

Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura Miscellaneous reversible alopecia. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been conclusively associated with propranoiol.

Clinical Laboratory Test Findings Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase

ORAL DOSAGE AND ADMINISTRATION

HYPERTENSION — Dosage must be individualized. The usual initial dosage is 40 mg INDERAL twice daily, whether used alone or added to a diurelic. Dosage may be increased gradually until adequate blood pressure is achieved. The usual dosage is 160 to 480 mg per day. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

While twice-daily dosing is effective and can maintain a reduction in blood pressure throughout the day, some patients, especially when lower doses are used, may experience a modest rise in blood pressure toward the end of the 12 hour dosing interval. This can be evaluated by measuring blood pressure near the end of the dosing interval to determine whether satisfactory control is being maintained throughout the day if control is not adequate, a larger dose, or 3 times daily therapy may achieve better control.

PEDIATRIC DOSAGE

At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use

INTRAVENOUS

The intravenous administration of INDERAL has not been evaluated adequately in the management of hypertensive emergencies

OVERDOSAGE OR EXAGGERATED RESPONSE

IN THE EVENT OF OVERDOSAGE OR EXAGGERATED RESPONSE, THE FOLLOWING MEASURES SHOULD BE EMPLOYED

BRADYCARDIA - ADMINISTER ATROPINE (0.25 to 1.0 mg). IF THERE IS NO RE-SPONSE TO VAGAL BLOCKADE. ADMINISTER ISOPROTERENOL CAUTIOUSLY CARDIAC FAILURE - DIGITALIZATION AND DIURETICS HYPOTENSION - VASOPRESSORS, e.g. LEVARTE

EVIDENCE THAT EPINEPHRINE IS THE DRUG OF CHOICE).

BRONCHOSPASM – ADMINISTER ISOPROTERENOL AND AMINOPHYLLINE

HOW SUPPLIED

BLETS INDERAL (propranolol hydrochloride)

No. 461—Each scored tablet contains 10 mg of proprianolol hydrochloride, in bottles of 100 and 1,000. Also in unit dose package of 100. No 462—Each scored tablet contains 20 mg of proprianolol hydrochloride, in bottles of 100.

462:—Each scored tablet contains 20 mg of propranoiol hydrochioride, in bottles of 10 and 1,000. Also in unit dose package of 100.

No. 464—Each scored tablet contains 40 mg of propranolol hydrochloride, in bottles of 100 and 1,000. Also in unit dose package of 100.

No 468—Each scored tablet contains 80 mg of propranolol hydrochloride, in bottles of 100 and 1,000. Also in unit dose package of 100.

INJECTABLE

No 3265—Each mI contains 1 mg of propranolol hydrochloride in Water for Injection. The pH is adjusted with citric acid. Supplied as: 1 mI ampuls in boxes of 10

Reference: 1. Freis, E.D., Hypertension (Suppl. II) 3:230 (Nov.-Dec.) 1981 7997/482



Professional Liability Commentary*

Featuring: The Medical Record, Friend or Foe?

It has been said that the medical record can become the physician-defendant's best friend or worst enemy in a medical malpractice case. In addition to being the primary medium for communicating and coordinating diagnosis and treatment among the many health care providers involved in a patient's care, the medical record takes on a vitally important role in light of subsequent allegations of malpractice.

A medical malpractice case actually may not get into the courtroom until years after the alleged negligence occurred. In these cases, the medical record—not the recollections of the patient or the physician—is considered to be the more reliable source of information concerning the patient's care. Courts have held that "if it isn't in the record, it didn't happen." Therefore, it is the medical record that will be instrumental in determining whether or not an acceptable standard of care was met by the physician-defendant.

To be able to serve effectively the physician rather than the plaintiff's attorney, the medical record must contain complete and accurate documentation of the course of the patient's care. The entries should be specific and factual, avoiding vague generalities and extraneous remarks. Everything of significance to the patient's condition and treatment clearly and concisely should be included in the chart. The record should reflect a well-thought-out plan of action on the part of the physician, i.e. the physician's evaluation of the situation based on the evidence presented (history, diagnostic test results, physical observations), and logically should lead to the eventual course of treatment documented in the record. Any atypical treatment, as well as the reasoning behind it, should be documented specifically. Any lack of cooperation or failure to follow the advised course of treatment on the part of the patient also should be entered on the chart.

All entries should be as timely as possible. Time gaps in the record and lengthy dictation delays can weaken a defense should subsequent litigation ensue.

All notes and orders should be legible and should contain only approved abbreviations. Be careful when writing drug orders; the use of unusual abbreviations or the incorrect placement or omission of a decimal point can lead to serious medication errors.

If an alteration absolutely is necessary to correct an inaccuracy in the record, the following procedure should be used:

- Draw a single, thin line through the inaccurate material, making sure the original entry remains legible. Never obliterate any material on a record.
- 2. Date and initial the record at the correction site and note the previous entry is being revised.
- 3. Enter the correction and clearly indicate which entry the correction is replacing.

If this procedure is followed when altering a medical record, a claim of record tampering or coverup can be avoided and the credibility of the record will remain intact. Good documentation best will serve the patient's interest and can be a physician's best defense. The time and effort spent now to insure that your patient's records are complete and accurate will be worth your while should the records be subpoenaed in the future. Do not let today's poor documentation habits turn a medical record into your worst enemy in a courtroom tomorrow.

(Patient & Newsletter, Vol. 4, No. 1, January, 1982)

PHYSICIAN ATTITUDES INITIATE CLAIMS

The premise that many medical malpractice claims stem from a poor physician/patient relationship is not novel. However, the recent influx of articles, discussions, and presentations devoted to this topic suggest an increasing awareness among physicians.

A Nashville surgeon, W. Andrew Dale, M.D., in the September, 1981, issue of Archives of Surgery, and also reported in the December, 1981, issue of Loss Minimizer, suggests physicians invite malpractice. "Since the malpractice problem is not controlled and, in fact, threatens to engulf us all in catastrophe, every physician must be convinced that his personal daily actions affect the overall pattern . . . and that individual responsibility extends beyond payment of a yearly premium for financial protection." Dr. Dale emphasized that "aloofness and arrogance, along with a lack of personal attention and interest, probably trigger more lawsuits than do technical errors."

In the January 4, 1982, issue of *Medical Economics*, Richard Bates, M.D., in his article entitled, "What The Doctor Surplus Will Really Look Like," predicts a physician surplus will have an effect on physician/patient relationships. "And we'll pay more attention to the four A's of practice—affability, availability, ability, and advertising—which should reduce malpractice suits and mute the frequent criticisms that we're arrogant, too busy, and never around when needed. It will hurt, but we'll have to be more humble."

The January 22, 1982, issue of American Medical News presents an article on its editorial page entitled "Why Consumers Are Dissatisfied." The author, John M. Corboy, M.D., offers the following: "In a recent major study of health care, three areas of consumer dissatisfaction emerged. One was the amount of information given to patients by physicians. The other two were cost of medical care and waiting time to see the physician.

It is interesting that none of these complaints dealt with the technological aspects of medical care. It appears that consumers are satisfied with medicine as a science, but not with medicine as an art. Patients do not think they are

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department and Assistant Director and Editor.

Table 1
Percent of Respondents Who Wrate In
Regarding the Most Annoying Aspects*

Regulating the most Atmosting Aspects				
Women	Men			
21	26			
20	14			
18	23			
15	12			
11	10			
4	0			
1	4			
	Women 21 20 18			

*Percentages add up to less than 100 in cases where same respondents were undecided. (Health, Feb. 1982)

receiving the information, encouragement, and reassurance that are part of the total care package, and this seems attributable to poor communications.

"Shape Up Doc!" is the title of an article in the February, 1982, issue conducted by *Health* of its readers' response to the question, "How do you really feel about your doctor?"

Although the article devoted itself to several issues, the prime consideration of patients was of being treated as a "human being." "Personal factors such as the doctor's ego or lack of compassion and understanding were way ahead as source of distress." The article suggests that patients "don't mind paying for service, so long as they get what they're looking for—a sympathetic, caring doctor."

Of the most annoying aspects of physician/patient relationships listed, it is interesting to note that the bill is among the least annoying of the aspects.

Another section of the survey concerned itself with the question of "who had the final responsibility for patient treatment." Of those who responded, 60 percent believed the patient, not the physician, should have responsibility for his or her own treatment. However, 57 percent admitted that patients lack the expertise to judge a physician's performance.

Solutions offered to "cope" for a patient's lack of medical knowledge resulted in added frustrations to the patients. Physicians "dislike patients who ask questions" claimed one-

Table 2

A Gaad Dactor* Wamen Men Takes the time to answer questions 42 in language I can understand 46 Is caring, compassionate, and interested in me 38 39 Admits mistakes and isn't afraid to ask a second opinian 8 Listens and takes my opinian 19 seriously 15 Is intelligent, skilled and up to date in his field 15 19 Is available, answers phone calls, 10 and makes house calls

*Percentages add up ta mare than 100 in cases where some respandents gave mare than ane answer. (Health, Feb. 1982)

4

2

Daesn't talk dawn ta me, isn't

egotistical

Has reasonable fees

third of the respondents and more than one-half of the respondents felt physicians "resent patients who request a second opinion."

The survey concluded by offering a list of qualities which patients look for in a physician.

The negative comments having to do with physician performance presented in this survey and the previously reported articles are reiterated in most alleged professional liability claims.

Suggested solutions aimed toward improved physician/patient relationships have come forth from within and from outside those in the medical profession. Unfortunately, many of these suggestions have gone unheeded, creating an "it's not me, it's the other physician" attitude.

This recent profusion of articles, within a two-month timespan, related to physician/patient relationships, may be coincidental. However, it may suggest an increased recognition among those in the medical profession that a poor physician/patient relationship tends to be an initiator of a malpractice claim.

DID YOU KNOW . . .

... The majority of courts considering special medical malpractice statutes of limitations have upheld them against constitutional challenge? (Personal Injury Newsletter, December, 1981)

... Discussing DES litigation with an American lawyer, a member of Britain's House of Lords questioned how physicians could be blamed for prescribing a product that was the state of the art? "Sir," the lawyer replied, "Medical litigation in the United States has nothing to do with right or wrong." (Medical Liability Monitor, December, 1981)

... Protection against professional liability will rise in the United Kingdom as a result of a 35 percent increase in indemnity payments and defense costs? The current premium is 15 to 20 pounds for first-year subscription, ranging up to 80 to 85 pounds in the fourth year. (Medical Liability Monitor, December, 1981)

... The Center for Disease Control in Atlanta projects an increase in births of 46 percent for women between 35 to 49 years of age during the next ten-year period, thus requiring a greater demand for amniocentesis? (American Medical News, January 29, 1982)

COSTLIEST SUITS STILL ARE PROFESSIONAL AND PRODUCTS LIABILITY ACTIONS

The specter of those million dollar awards continues to haunt professional liability insurers and tantalize plaintiffs' lawyers. The overwhelming majority of the million dollar plus awards have been made in cases involving brain damage, permanent paralysis, wrongful death, burns, and multiple serious injuries, according to a recent report in *Risk Management* magazine.

Products and professional liability actions still far outpace any other types of actions in terms of big monetary payouts. The number of awards over \$1 million steadily has been climbing. In the 1960s only 20 awards were logged; by the end of the 1970s there were more than 380 such verdicts. In fact, said the *Risk Management* report, all but nine states have seen verdicts ranging from \$1 million to \$75 million in the last two or three decades. (Medical Liability Monitor, January, 1982)

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EDITORIALS

Visit Your Congressmen

As a member of the American Diabetes Association Board of Directors, I visited the offices of four Congressmen during the last week of February. Congressman James J. Florio (D) and his legislative assistant, Peter E. Newbould, spent a full hour discussing a wide range of health topics. Representative Bernard Dwyer (D) was rushed and spent less than 30 minutes with me. Representative Matthew J. Rinaldo (R) was detained in a committee meeting and did not appear; but I had over an hour with his press secretary, Ben St. John, and his legislative counsel, Spencer C. Warren. I was unable to see Senator Bill Bradley (D) and an appointment with his health aide proved untimely. I was able to leave some material for Senator Bradley and received a secretarial promise that a phone call and/or letter would be forthcoming.

Overall, the experience was positive and worthwhile. The primary basis of my visit was to discuss the ADA legislative positions with regard to the FY1983 budget. In particular, the discussion was aimed at maintaining a workable level of funds for biomedical research in the entire National Institutes of Health budget, and, particularly, the Diabetes Institute.

In addition, we supported the research budget of the Veterans Administration and the budget for the Center for Disease Control. Dr. Roslyn Yalow, a physicist at the Bronx VA Hospital, received the Nobel Prize for diabetes research under the VA budget. New Jersey has been funded by CDC as one of 20 states to develop a Demonstration Diabetes Control Project under the New Jersey State Department of Health. A final request was for opposition to the Small Business and Research Bill provisions that set aside 1 to 3 percent of NIH extramural funds for small businesses.

The discussion on diabetes informed the legislators of the magnitude of the problem of diabetes—mortality, morbidity, prevalence, and costs—to the nation and to New Jersey. Some of the research—implantable pumps, biosynthetic human insulin, islet cell transplantation—was described.

Aside from diabetes, however, I was able to discuss many problems of health in New Jersey including the positive and negative effects of legislation and regulations on patients, physicians, and the health care system in our state. We talked about DRG (most were unfamiliar with the concept), Medicaid (what is likely to happen when the federal government takes over), the importance of fee-for-service practice, as well as HMOs and alternative health care delivery systems, the role of the Medical Society of New Jersey, the problems with the New Jersey Board of Medical Examiners, and a host of other topics.

It seems that our Congresspeople, and especially their aides, are willing to see us and to listen. They need all the information and advice they can get, even though they do not always use it. They want reasons and explanations, not just legislative directions. There is no way that our legislators can be knowledgeable on all health issues, so they appreciate good discussions and facts.

A major point I tried to make was that the Medical Society of New Jersey is their best source of information on health issues. We are their physicians and they are our congresspeople—we can use each other. I pointed out that, as a group, New Jersey medicine is vital, intelligent, interested, informed, available, and cooperative. We carry strength as voters, as community leaders, and as professionals with a special relationship to our patients and their families.

Each of us can benefit from a visit to Washington, but our legislators also can benefit if we visit them.

The following advice was provided by the ADA and it proved helpful:

- 1. The United States Senator or Representative bears the concerns of the entire United States, as well as those of his specific electorate.
- 2. Respect for the office is to be held firmly in mind. This should govern your approach to a legislator whose views may differ from yours.
- 3. In your contact with a legislator, represent to him, and be a carrier of, those positive aspects of character you hope might exert the deciding influence when governmental decisions are made.
- 4. Remember that legislators generally have great interest in people—expect to be welcomed. Legislators are interested in being well thought of.
- 5. Time pressures are critical. Ten minutes is a long time to spend with a legislator. There is no time to present an argument—just time enough to state a position and show the flag.
- 6. Remember the key advisory role of staff members: they are assigned to specific areas, and are invested with a special trust by the legislator; many may run for office themselves; they also are people who enjoy people; and in followup, they are the people you are most likely to contact. Be well remembered by them.
- 7. Don't apologize for representing a "special interest group." Medicine is concerned with a specific problem which affects the general good. These concerns must be brought to the consciousness of the legislator. Proper study and care of major health problems go beyond issues of morbidity, mortality, research, and delivery of care.
- 8. Identify yourself as a source of reliable information and sound recommendations regarding public policy on health. Don't be offended if some legislators express cynicism about the interests of physicians.
- 9. Followup. The political system, like the personal physiology of the patient, will not take care of itself, it requires

recurrent, deliberate attention. This is the beginning of a long relationship with your legislator. Start it off right and continue it.

10. When you get home, let it be known that you have been heard and responded to—the word gets back to the legislator when you have spoken well of him and that never hurts.

Senator Bradley is a member of the Senate Finance Committee and its Subcommittee on Health and on the Special Committee on Aging. Congressman Dwyer is a member of the House Appropriations Subcommittee dealing with Health. Congressman Florio is a ranking member of the

Energy and Commerce Committee and of the Subcommittee on Health. Congressman Rinaldo is a ranking member of the Commerce Committee in the House.

All of these gentlemen have an influence on health legislation and health financing. Other legislators deal with matters of importance to the medical profession as well. We have written to all of them asking for an article for *The Journal* and positive responses are beginning to filter back.

Good relationships between New Jersey legislators and New Jersey physicians on a one-to-one basis can help. Give it a try.

A.K

The President of the American Cancer Society

Robert V.P. Hutter, M.D., a member of our Essex County component, is the recently elected President of the American Cancer Society. This is a significant honor for the Medical Society of New Jersey and for the state; Dr. Hutter, who assumed this high position last November, is the first New Jerseyan to be named to the national position.

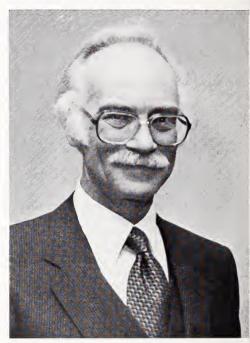
As President of the American Cancer Society, Dr. Hutter is carrying forward the momentum of the Society's work. In particular, Dr. Hutter is focusing his attention on the September launching of the Cancer Prevention Study II. The first study, from 1959 to 1972, validated the true risks of smoking. Dr. Hutter noted that this nationwide, confidential study would involve one million people, "The public holds great anxiety and significant frustration and concern about carcinogens. This study will deal with the aspects of environment and lifestyle; it will answer the questions, "What is safe and what is hazardous?"

Dr. Hutter's work also will explore the areas of diet and nutrition as they relate to the causation of cancer. As Dr. Hutter noted, "We now have the opportunity to identify these factors in the hopes of preventing cancer."

Other areas of concern to Dr. Hutter include the improvement of the early detection of cancer and the increase in readaptation programs. Dr. Hutter stated, "We realize that we do not have enough psychosocial data for complete readaptation programs. We plan to stimulate research in the area of behavior as it affects lifestyle—to be able to offer help."

As a pathologist involved in cancer diagnosis, Dr. Hutter is concerned with the overall total concept of cancer management, "We deal with a person who also happens to have cancer. We treat the person, not only the disease. We have an obligation to give medical and psychological support to the patient and the patient's family. This includes dealing with counseling and education. Patients must be aware and doctors must keep up-to-date information on methods of treatment."

Born in 1929 in Yonkers, New York, Dr. Hutter was graduated from the State University of New York College of Medicine in 1954. He served as lieutenant in the Medical Corps, United States Naval Reserve; after an honorable discharge, he was a Staff Pathologist for the United States Naval Hospital in Virginia from 1958 to 1960, becoming board certified in his specialty in 1959.



Robert V. P. Hutter, M.D.

Dr. Hutter's contributions to the medical profession are noteworthy. With an impressive career record, Dr. Hutter's list of achievements is outstanding. As a member of the American Cancer Society since 1968, Dr. Hutter has participated on a variety of councils and committees including: the National Task Force on Gynecological Cancer, the National Conference on Human Values and Cancer, the National Conference on Detection and Prevention, the National Conference on Breast Cancer, and the Research and Clinical Investigation Committee.

His work with the New Jersey Division of the American Cancer Society is highlighted by his participation on the Ad Hoc Committee to Study National Division of Funds, the Board of Trustees, the Public and Professional Education Committees, and the Situation Analysis Review and Implementation Committee.

Dr. Hutter's membership on various medical and scientific societies and associations display another dimension of his professional involvement. His committee and commission work include: the American College of Radiology, the American College of Surgeons, the College of American Pathologists, the American Joint Committee for Cancer Staging and End-Results Report, the Academy of Medicine of New Jersey, and the American Association for Cancer Education.

A highly regarded teacher, Dr. Hutter has served as Professor and Chairman of the Department of Pathology at UMD-New Jersey Medical School, Professor of Clinical Oncology, American Cancer Society, and presently is Adjunct Professor of Pathology at the Columbia University College of Physicians and Surgeons.

In 1980, Dr. Hutter was the 19th recipient of the Physician's Award from the New Jersey Division of the American Cancer Society. This honor was bestowed upon Dr. Hutter for his "innovative contributions to cancer detection through developments in screening and refinements in pathology." Such work included his initiating a breast cancer screening project and the installation of a communications network at Saint Barnabas Medical Center whereby he could "transmit his laboratory findings directly to the surgeon via a television screen while an operation was proceeding."

Dr. Hutter is the Director of Pathology at Saint Barnabas Medical Center; he resides in Livingston with his wife, Ruth, and their three children, Andrew, Edie, and Randi.

G.H.

Who Pronounces Death?

This question would have been inconceivable a few years

The State Board of Medical Examiners (SBME) plans to amend N.J.A.C. 13:35-6.5 (Pronouncement of Death at a Home, Medical, or Nonmedical Facility). The proposed change will allow a registered professional nurse or a certified emergency medical technologist to make the pronouncement of death when a physician is not readily available. The reputed intent of the amendment is "to alleviate the burden presently borne by the decedent's family, ambulance squad, and police."

Neither the concept nor the explanation makes any sense. Would the family of the decedent feel great confidence in the opinion of a nurse or medical technologist who walks onto the scene of death under such circumstances? What burden would be lifted from the ambulance squad or police?

The Board of Trustees is opposed to the proposal; it has documented and forwarded its objections to the State Board of Medical Examiners. Among its concerns are:

1. If death is pronounced by a nurse or an emergency technician, who will take the responsibility to complete the

death certificate? Any physician who does so under such circumstances would be exposed to legal ramifications, whether he were the attending physician or not.

2. Will the SBME change the regulations to allow non-physicians to sign death certificates?

There are alternative solutions to pronouncement of death when the attending physician or another physician is not at hand. In fact, it would appear to be in the best interests of all—family, ambulance squad, and police—to transport the body to the nearest hospital emergency department.

It is not inconceivable that an apparent death might be misinterpreted on an occasion. Are the collective shoulders of the SBME large enough to bear that responsibility?

It seems that government agencies of all types are chipping away at the inviolable rights and responsibilities of physicians on the alleged basis of expediency or cost savings, while, in fact, they are downgrading important functions that are not transferrable to nonphysicians. Pronouncement of death is a physician's responsibility. The State Board of Medical Examiners should be informed. The Board of Trustees has done so. Why don't you?

A.K.

A Friend In City Hall

It is a great pleasure to acknowledge the appointment of Frank J. Malta, M.D., a solo practitioner in internal medicine from Toms River, to the State Board of Medical Examiners.

Frank is well known to the Trustees, Officers, and general membership of the Medical Society of New Jersey, due to his outstanding participation in all manner of leadership and committee roles over the past decade and a half.

Born in Asbury Park and educated at Tulane University, Kings County Hospital, Brooklyn, New York, and Edward J. Meyer Memorial Hospital, Buffalo, New York (residency in internal medicine), Frank has practiced in Toms River since 1961. Certified in 1965 and recertified in 1974 by the American Board of Internal Medicine, Dr. Malta has appointments at the Community Memorial Hospital, Paul

Kimball Hospital, Point Pleasant Hospital, and Deborah Hospital.

Frank Malta maintains membership in the American Medical Association, the Medical Society of New Jersey, the Ocean County Medical Society (Delegate), the Academy of Medicine of New Jersey (Fellow), the American College of Physicians (Fellow), the American Society of Internal Medicine, the Medical History Society of New Jersey, and the American Geriatric Society (Fellow). He has held positions on numerous MSNJ Committees (Public Relations, Medical Defense and Insurance, and Medicaid) and is the Past President of the New Jersey Society of Internal Medicine. Dr. Malta's community activities are too numerous to list.

There could have been no better choice for membership on the State Board of Medical Examiners. A.K.

ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION:

INSOMNIA

Others to look for:

agitation

anorexia

feelings of guilt and worthlessness

fatigue

palpitations

headache

vague aches

and pains

sadness

psychic and

somatic anxiety

Artist's conception, looking out from the human eye as conceived in a schematic model.



LIMBITROL GIVEN H.S.: ONE OF THE VITAL SPECIFICS OF TREATMENT

Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include anorexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vague aches and pains.

Limbitrol given once daily h.s. may be the best approach

Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol®

Tablets 5-12. 5 each cantaining 5 mg chlardiazepaxide and 12.5 mg amitriplyline (as the hydrachlaride salt)

Tablets 10-25 each cantaining 10 mg chlardiazepaxide and 25 mg amitriptyline (as the hydrachlaride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant Before prescribing, please consult complete product information,

a summary of which follows: Indications: Relief of moderate to severe depression associated with moderate to severe onxiety

Contraindications: Knawn hypersensitivity to benzodiazepines or tricyclic ontidepressonts. Do not use with monoomine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concamitant use, then initiate coutiously, gradually increasing dasage until optimal response is ochieved. Contraindicated during ocute recovery phase following myocardial

Warnings: Use with great care in potients with history of urinory retention or ongle-closure gloucomo. Severe constipation may occur in potients toking tricyclic antidepressonts and anticholinergic-type drugs. Closely supervise cordiovoscular potients (Arrhythmios, sinus tochycordia and prolongation of conduction time reported with use of fricyclic onlidepressants, especially high doses. Myocordial infarctian and stroke reported with use of this class of drugs) Caution potients about possible combined effects with alcohol and other CNS depressonts and ogoinst hazordous occupations requiring complete

other CNS depressions and against industrial exceptions requiring compiled contents (e.g., operating machinery, driving)

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be ovoided because of increased risk of congenital molformations os suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise potients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chloridazepoxide have been reported rarely use coulion in administering Limbirio to addiction-prone individuals or hose who might increase disoage, withdrowal symptoms following discontinuation of either component alone have been reported (nouseo, heodoche ond molaise for amitriptyline; symptoms [including convulsions] similar to those of borbiturate withdrowol for chlordiazepoxide). Precautions: Use with caution in potients with a history of seizures, in hyperthyroid potients or those on thyroid medicotion, and in potients with impoired renot or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these potients Periodic liver function tests and blood counts are recommended during prolonged freotiment. Amitriphyline component may block action of guonethidine or similar onthhypertensives. Concomitant use with other psychotropic drugs has not been evaluated sedative effects may be additive. psychiatry and the several days before surgery. Limit concomition of deministration of ECT to essential treatment. See Wornings for precoulions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smollest effective. in children under 12 in the eiderly ond debinided, infini to strictless elective dosage to preclude obxio, oversedotion, confusion or antichalinergic effects.

Adverse Reactions: Most frequently reported ore those ossociated with either component olone drowsiness, dry mouth, constipation, blurred vision, dizarness and blooting. Less frequently occurring reactions include vivid dreams, impotence, fremor, confusion and nosol congestion. Many depressive symptoms including anorexa, fatigue, weakness, restlessenses and lethargy have been reported as side effects of both Limbirton and amilitarity. Granulocytapenia, jaundice and hepatic dysfunction have been observed

rarely
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both

components or closely related drugs.

Cordiovosculor Hypotension, hypertension, tachycardia, palpitations, myo-cardial infarction, arrhythmias, heart block, stroke.

Psychiotric: Eupharia, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, fingling and paresthesias of the extremities, extrapyromidal symptoms, syncope, changes in EEG patterns Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary

retention, dilatation of urinary fract.

Allergic. Skin rash, urlicaria, photosensitization, edema of face and tongue,

Hematologic Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gostrointestinol: Nausea, epigastric distress, vomiting, anorexia, stomatifis,

peculiar toste, diarrhea, black longue

Endocrine Testicular swelling and gynecomastia in the male, breast
enlargement, galactorrhea and minor menstrual irregularities in the female

enal general, gauderimed unto minor mensional megalamies in the lender and elevation and lowering of blood sugar levels

Other Headache, weight gain or loss, increased perspiration, urinary frequency, mydraiss, journales, alopeia, porolla swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose freatment is symptomatic and supportive IV administration of 1 to 3 mg physostigmine solicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation

Dosage: Individualize accarding to symptom severity and patient response Reduce to smallest effective dosage when satisfactory response is obtained Larger portion of daily dose may be taken at bedtime. Single h s dose may

suffice for some patients. Lower dosages are recommended for the elderly Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses. increased to six tablets or decreased to two tablets daily as required

Limbifrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not blerate higher doses How Supplied: While, film-coaled tablets, each containing 10 mg chlor-

and azepoxide and 25 mg minitriphyline (cs. the hydrochiloride salt) and blue, and film-coaled hydrochiloride salt) and blue, and film-coaled hydrochiloride salt)—bottles of 100 and 500, felt-E-Dosepoxide (100, available in trays of 4 reverse-pumpers boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50



ANNUAL AWARDS DINNER of the ACADEMY OF MEDICINE OF NEW JERSEY

Wednesday, May 26, 1982 6:00 P.M.

THE CHANTICLER Millburn, New Jersey

1982 AWARD RECIPIENTS

EDWARD J. ILL AWARD ARTHUR KROSNICK, M.D.

CITIZENS AWARD WILLIAM R. WALSH, JR.

GUEST SPEAKER LARRY WACHTEL

First Vice-President Bache Halsey Stuart Shields, Inc.

For further information, contact Executive Offices of the Academy: Two Princess Road, Lawrenceville, NJ 08648 (609) 896-1717

NEW JERSEY SOCIETY OF PATHOLOGISTS

ANNUAL SPRING MEETING

SATURDAY, MAY 22, 1982

UMD-Rutgers Medical School, Piscataway, New Jersey 8:30 A.M.-2:00 P.M.

ON

"FORENSIC PATHOLOGY/LEGAL MEDICINE"

Program Chairman: Robert Goode, M.D.

The program will contain presentations by nationally prominent and outstanding pathologists on the practical aspects of Forensic Pathology as they affect hospital pathologists. A brief overview of the New Jersey Medical Examiners Act with updated clarifications of the interactions between the hospital pathologist and County and State Medical Examiner offices will also be presented. The main part of the program presentation will include "Hospital Deaths Related to Therapeutic and Diagnostic Misadventure," "Forensic Neuropathology," and "Forensic Aspects of Surgical Pathology."

For Further Information Contact:

Cathy Gillmer New Jersey Society of Pathologists Two Princess Road Lawrenceville, New Jersey 08648 Phone: (609) 896-1717

JEMPAC REPORTORIAL*

EDWARDS TO SPEAK; SENATORIAL CANDIDATES RECEPTION AT MSNJ 1982 ANNUAL MEETING

W. Cary Edwards, Counsel to Governor Kean, has been invited to speak at this year's JEMPAC breakfast on Sunday, May 16, 1982.

Prior to his appointment as Counsel to the Governor, Mr. Edwards had been a member of the New Jersey Assembly representing the 40th District, part of Bergen County.

Mr. Edwards is a graduate of Seton Hall University and the Seton Hall School of Law. He has served successfully as a state legislator since 1978 and is considered by many to be destined for higher political office.

Those who attend the 7:00 A.M. breakfast will hear Mr. Edwards discuss the topic, "Importance of PACs and Physician Involvement in the Political Process."

Tickets cost \$7.50 per person and will be available in advance through the JEMPAC offices at the Medical Society headquarters, as well as on sale at the JEMPAC booth on Friday evening, May 14, and on Saturday, May 15.

This year's JEMPAC's Wine and Cheese Reception will host a reception for all major candidates for the office of United States Senator from New Jersey. The reception will be held from 6:00 to 8:00 P.M. on Saturday, May 15, and is open to all physicians and their spouses at no cost.

JEMPAC MEMBERSHIP DRIVE

The JEMPAC Board of Directors, at its January 27, 1982, meeting, endorsed the idea of a concentrated drive for membership to achieve a goal of 1,000 members.

	County Membership
County	No. of Members
Atlantic	0
Bergen	20
Burlington	2
Camden	6
Cape May	0
Cumberland	5
Essex	5
Gloucester	2
Hudson	3
Mercer	2
Middlesex	4
Monmouth	8
Morris	7
Ocean	2
Passaic	6
Salem	0
Somerset	2
Sussex	0
Union	28
Warren	1
	JEMPAC for Impact

The Board is requesting that county societies strive for 10 percent of their membership to become JEMPAC contributors. The county societies that achieve this goal will receive recognition at MSNJ's 1982 Annual Meeting. County societies that surpass the 10 percent goal will receive special recognition. The deadline for achieving a 10 percent or better membership to JEMPAC is April 15, 1982.

County societies, in soliciting membership, may elect to have their physicians send contributions to the county society. The county society then should submit a listing of physician-members and their personal checks to JEMPAC, throughout the duration of the drive.

Another alternative is the use of JEMPAC applications and envelopes which are available on request from the JEMPAC office.

Good luck in your endeavors and thank you in advance for your assistance.

STATE BOARD PROPOSES NEW PRONOUNCEMENT OF DEATH REGULATIONS

The State Board of Medical Examiners is proposing a rule that would permit a nonphysician to make a pronoucement of death. This could place the attending physician at a disadvantage and legally expose the physician when completing a death certificate where no physician has exercised the clinical determination of death.

JEMPAC urges you to write to the State Board of Medical Examiners and express your concern.

DR. GORACCI SERVES ON GOVERNOR'S TRANSITION TEAM

Armando F. Goracci, M.D., President of MSNJ, represented the Medical Society as a member of Governor Kean's Executive Screening Committee of the Health Department's Transition Team in its selection of the Commissioner of Health

Although it had been rumored that the Governor might select a nonphysician for the position, the Medical Society adamantly remained opposed to such a consideration.

Dr. Goracci and other physician members of the Society informed the Governor, his staff, members of the Senate Judiciary Committee, and other influential legislators of the Society's opposition to a nonphysician as a Commissioner of Health

In mid-February, Governor Kean nominated Dr. Shirley A. Mayer of Hohokus to be Commissioner of the State Department of Health. Dr. Mayer graduated cum laude from Hunter College of New York and graduated from the University of Chicago School of Medicine. She holds a Master's in Public Health from Columbia University School of Public Health and Administrative Medicine.

^{*}Copies of JEMPAC and AMPAC reports are filed with the Federal Election Commission and are available for purchase from Federal Election Commission, Washington, D.C. This item is prepared by the Chairman of JEMPAC Committee, Frank Watson, M.D., and A. Ronald Rouse, JEMPAC Executive Director.



The Medical Society of New Jersey and Middlesex General Hospital in New Brunswick are recipients of a one-year grant from the Hunterdon Health Foundation to complement the first contracted LIFELINE system in New Jersey. This is the second in a series on the progress of the project during its first year of development.

The Medical Society of New Jersey and Middlesex General Hospital have been gratified by the numerous inquiries received regarding the *LIFELINE* emergency response system from public service organizations and hospitals throughout the state.

Local media coverage in the Middlesex General Hospital service area and inhouse hospital communications have prompted a number of requests for the emergency response service.

The need for an emergency response system that will permit the chronically ill and the physically impaired to live independently in their own homes is illustrated by a listing of those who thus far have requested the *LIFELINE* system:

- Family and/or friends of a potential subscriber
- · Hospital social service department
- An institution where a patient most recently was hospitalized
- · Hospital-home care department
- · Physicians' referrals
- · Visiting nurse association
- Senior citizen groups
- Church groups
- Potential subscribers

To aid in the selection of a potential subscriber, Middlesex General Hospital has developed a "Request for *LIFELINE* Service" form. In addition to the general data, information is

"... firmly establishing the need and desire of the potential subscriber."

requested regarding: physical condition, physician's name, and person or agency referring if other than the potential subscriber.

The requests are reviewed by the Program Coordinator who then phones the potential subscriber or the person or agency referring the potential subscriber. During the initial contact, the Program Coordinator explains the role of *LIFELINE* while firmly establishing the need as well as the ability and desire of the potential subscriber for the *LIFE-LINE* service.

When the Coordinator determines that the potential subscriber qualifies for the service, an appointment for a home interview is arranged. At this time, the potential subscriber is asked to name two "responders." A responder may be a friend, relative, neighbor, community member, or church group member who wishes to aid the potential subscriber. It is imperative that the responder be available within five to ten minutes when called during a LIFELINE emergency by the Emergency Medical Coordinator. Consequently, considerable thought is given to the selection of the subscriber's choice of responders as they are an integral part of the support system.

To aid responders in fully understanding their responsibilities, it is wise to have them present during the home interview. Early participation of the responder also serves to develop understanding and acceptance of the program by the subscriber.

"A home interview permits the Program Coordinator to assess the circumstances."

The home interview permits the Program Coordinator to assess first hand the circumstances that indicate whether the potential subscriber would benefit by *LIFELINE* and utilize the program appropriately. To aid the Coordinator in determining the eligibility of a subscriber, a survey instrument has been developed.

The format of the instrument consists of a series of questions that assess chronic illness, social and psychological isolation, functional disability, and medical problems of the potential subscriber. This assessment instrument was developed by Andrew Dibner, Ph.D. of *LIFELINE* Systems,

Inc. and has been proved workable across the country.

"The needs assessment survey instrument was developed . . ."

At some point during the home interview the Program Coordinator will assess the potential subscriber's electrical system and wiring and electrical outlets to insure safe use of the *LIFELINE* Home Unit.

Through a previously arranged working relationship with the local telephone company, the Coordinator also will request a survey of the potential subscriber's home for installation of a modular telephone system.

When a subscriber has been accepted to be placed in the emergency response system, a Home Unit is installed after any necessary changes have been made in the existing telephone equipment.

Prudent screening and selection of potential subscribers are important to assure a worthy emergency response system.

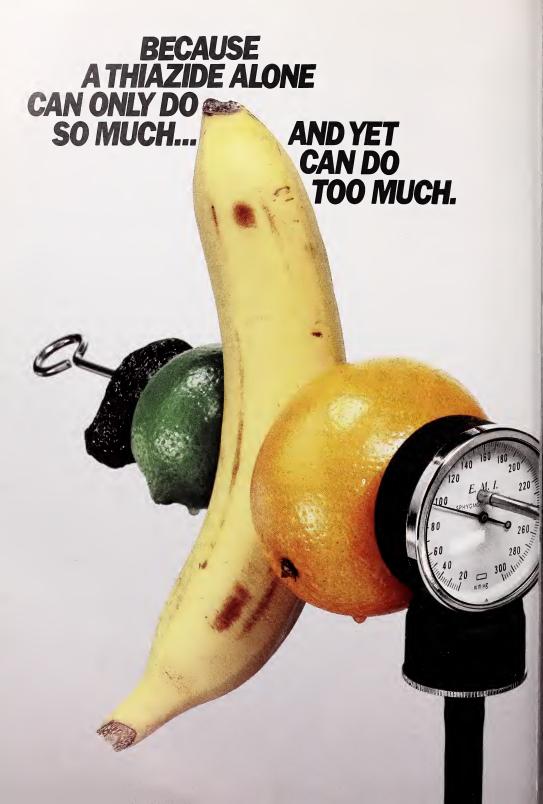
NEXT ISSUE

Middlesex General Hospital subscribers' opinions and thoughts on the *LIFELINE* program will be covered in the next issue.

The Medical Society of New Jersey has learned that two additional hospitals have recently implemented a *LIFELINE* Program: Hamilton Hospital, Trenton, and Riverside Hospital, Boonton.

Information regarding the *LIFELINE* project at Middlesex General Hospital may be obtained through A. Ronald Rouse, Medical Society of New Jersey, 2 Princess Road, Lawrenceville, NJ 08648, (609) 896-1766.

LIFELINE Newsletter may be printed without permission.



INCREASE CONTROL WITHOUT INCREASING POTASSIUM PROBLEMS.

A dependable means to long-term blood pressure control.

Many times, a diuretic alone can't keep hypertension in check. INDERIDE, however, can pick up where

thiazide therapy leaves off.

The combination of propranolol HCl, the world's most trusted beta blocker, and hydrochlorothiazide, the standard among diuretics, enables INDERIDE to exert an additive antihypertensive effect! In fact, a propranolol/hydrochlorothiazide regimen maintained blood pressure below 90 mm Hg in 81.8% to 86.4% of patients followed for 6 to 18 months of therapy!

Low thiazide dosage means reduced risk of hypokalemia.

When thiazides are prescribed in doses greater than 50 mg/day, the potential for hypokalemia increases substantially. What's more, the greater the fall in serum K+, the greater the risk of hypokalemia-induced PVCs.3.4

With INDERIDE, the additive hypotensive effect of propranolol HCl allows the effective dose of hydrochlorothiazide to be kept low (25 mg b.i.d.). And by lowering the daily dose of diuretic, INDERIDE also lowers the potential for diuretic-induced side effects. Potassium problems are less likely to occur—yet blood pressure can be controlled consistently.

NDERDE

Each tablet contains INDERAL® (propranolol HCI) 40 mg or 80 mg, and hydrochlorothiazide 25 mg

When you know you need more than a thiazide.

Please see Brief Summary of Prescribing Information on following page.

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR)

propranolol hydrochloride (INDERAL®) and hydrochlorothiazide

INDERIDE® No. 474—Each INDERIDE®-40/25 tablet contains NO. 474—Each INDERIDE - 40025 tablet contains: Propranoloi hydrochloride (INDERAL*) Hydrochlorothiazide No. 476—Each INDERIDE*-80/25 tablet contains: Propranolol hydrochloride (INDERAL*)

25 mg 80 mg 25 mg Hydrochlorothiazide

WARNING: This fixed combination drug is not indicated for initial therapy of hyperten-sion. Hypertension requires therapy titrated to the individual patient. If the fixed combi-nation represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension is not static, but must be reevaluated as conditions in each patient warrant

DESCRIPTION: INDERIDE combines two antihypertensive agents INDERAL (propranolol hydrochloride), a beta-adrenergic blocking agent, and hydrochlorothiazide, a thiazide

diuretic-antihypertensive. INDICATION: INDERIDE is indicated in the management of hypertension. (See boxed warn-

CONTRAINDICATIONS: Propranolol hydrochloride (INDERAL®): Propranolol hydrochlo-CONTHAINDICATIONS: Propranoiol hydrochloride (INDERAL*): Propranoiol hydrochloride is contraindicated in 1) bronnchial asthma: 2) allerigic thintis during the pollen season; 3) sinus bradycardia and greater than first degree block, 4) cardiogenic shock; 5) right ventricular failure secondary to pulmonary hyberension; 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythma treatable with propranolol; 7) in patients on adherengic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs.

Hydrochlorothiazide: Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

persensitivity to the or other sulcandide-derived ordine. WARNINGS: WARNINGS

out aborish in the contropic action of algitalis of the heart muscle view of existing the post in the control attention the control and the control action of digitalism and be reduced by propriated silved by reporting the elects of propriational and digitalism are additive in depressing AV conduction. In PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued begression of the myocardiant over a period of time cain, in some cases, lead to cardiac failure. In rare instances, this has been observed during propriation therapy. Their dispersion of the propriation of the propriati symptom of impending cardiac failure, patients should be thiny diginalized univor lighter and unefic, and the response observed closely a) if cardiac failure continues, despite adequate digitalization and diuretic therapy, propranolol therapy should be immediately withdrawn; b) if tachyarthythma is being controlled, patients should be maintained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, impocardial infarction, following abrupt discontinuation of propranolol therapy. Therefore, when discontinuance of propranolol is planned the dosage should be gradually reduced and the patient carefully monitored in addition, when propranolol is prescribed for angina pectors, the patient should be cautioned against interruption or cessation of therapy without the physician's advice if propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate analogment of unstable angina pectors. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given propranolol for other indications.

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use have not been adequately appraised. Special consideration should be given to proprianoloi's potential for aggravating congestive heart failure. Proprianoid may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of proprianoid may be followed by a neserbation of symptoms of hyperthyroidism, including thyroid storm. This is another reasonable to the propriation of the propria

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the IN PATIENTS UNDEHGUING MAJOH SURIGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of phoeochromocytoms, propranolol should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emer-gency surgery, since propranolol is a competitive inhibitor of beta-receptor agonists, its ef-lects can be reversed by administration of such agents, e.g., isoproterenol or levarierenol. However, such patients may be subject to protracted severe hypotension. Difficulty in re-station and maintaining the heart heal thas also heep reported.

starting and maintaining the heart beat has also been reported in PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-CHITIS, EMPHYSEMA), propranojol should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of

eta receptors DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its beta DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its betaadrenergic blocking activity, propranoiol may prevent the appearance of premonitory signs
and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially
important to keep in mind in patients with labile diabetes. Hypoglycemic attacks may be accompanied by a precipitous elevation of blocod pressure.
Hydro-chlorohizade: Thisazides should be used with caution in severe renal disease. In patients with renal disease, thisazides may precipitate azordemia. In patients with impaired renal.
Thisazides should also be used with caution in patients with impaired hepatic function or
progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

cipitate hepatic coma

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation curs with ganglionic or peripheral adrenergic blocking drugs. Sensitivity reactions may occur in patients with a history of allergy or bronchial asthm

The possibility of exacerbation or activation of systemic lupus erythematosus has been re-

USE IN PREGNANCY: Propranolol hydrochloride (INDERAL*): The safe use of pro-USE IN PRECINANCY: Propranolol hydrochloride (INDERAL'): The safe use of pro-pranolol in human pregnancy has not been established. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or fetus be weighed against the expected therapeutic benefit. Embryotix celleds have been seen in the properties of the properi

PRECAUTIONS: Propranolol hydrochloride (INDERAL): Patients receiving catechol PHECAUTIONS: Proprandoit narresonation and present processing attention and present animal depleting drugs such a resempne should be closely observed in propranoitor is administered. The added catecholarining blocking action of this drug may then produce an iministered breadless of the produce and present produce and produce activity of coasionality, the pharmacologic activity of propranoitor may produce hypotension and/or marked bradycardiar resulting in vertigo, sproppi attacks, or orthostate, they become activity of propression and produce they be added to the produce and they are activity of produce they be added to the produce and they are activity of produce they be added to the produce and they are activities and they are activities

renal or hepatic function

Hydrochlorothiazide: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals. All patients receiving hiazide therapy should be observed for chinical signs of fluid or electrolyte imbalance, namely hyponafremia, hypochloremic alkalosis, and hypokalemia Serum and urine electrolyte determinations are particularly important when the patient is yomiting excessively or receiving parenteral fluids. Medication such as digitalis may also inthurnic security of the starting signs, irrespective of cause are dyness of mouth, third, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular lique, hypotension, oliquina, tachycardia, and gastrontesinal disturbances such as nausea. and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present or during concomitant use of corticosteroids or ACTH. Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hy-pokalemia can sensitize or exaggerate the response of the heart to the toxic effects of digi-tialis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treaded by use of potassium supplements such as foods with a high potassium content.

of potassum supplements such as loods with a high potassum content. Any chloride deflicit is generally mild, and usually does not require specific treatment ex-cept under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatre-mia may occur in edematous patients in hot weather, appropriate therapy is water restric-tion, rather than administration of sall, except in rare instances when the hyponatremia is life-threatening in actual salt depletion, appropriate teplacement is the therapy of choice. Hyperuricemia may occur or frank goul may be precipitated in certain patients receiving threatife therapy.

thiazide therapy. Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administra-

Thiazide drugs may increase the responsiveness to tubocurarine.

The anthypertensive effects of the drug may be enhanced in the postsympathectomy patent. This administration is an experiment of the postsympathectomy patent. This administration is not sufficient to preclude effectiveness of the pressor agent for the rapeutic use. If progressive renal impairment becomes evident, consider withholding or discontinuing. diuretic therapy

currence merapy.
Thiazides may decrease serum PBI levels without signs of thyroid disturbance.
Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid
gland with hypercalcemia and hypophosphatemia have been observed in a few patients on. prolonged thiazide therapy. The common complications of hyperparathyroidism such as re-nal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

be discontinued before carrying out tests for parathyroid function.

ADVERSE REACTIONS: Propranolol hydrochloride (INDERAL®): Cardiovascular ADVERSE REACTIONS: Propranoid hydrochloride (INDERAL*): Leardovascular bradycardia, congestive heart failure: nitensitication of AV block, hypotension, paresthesia of hands; arterial insufficiency, usually of the Raynaud type, thrombocytopenic purpura. Central Nervous System: lightheadedness, mental depression manifested by insomnia, lassitude, weakness, statique; reversible mental depression progressing to catatonia; visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short term memory loss, emotional lability, slightly clouded sensorium, and decreased metformance on neurosyschometrics.

and decreased performance on neuropsychometrics. Gastrorniestinal nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic collitis.

Allergic, pharngills and agranulocytosis, systematous rash, fever combined with aching allergic, pharngills and agranulocytosis, evythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress. Respiratory bronchospasm

Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura Miscellaneous reversible alopecia. Oculomicocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a bet

conclusively associated with propranolol.

Clinical Laboratory Test Findings: Elevated blood urea levels in patients with severe headsease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

Hydrochlorothiazide: Gastronitestinal anorexia, gastinc irritation, nausea, vomiting, camping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadentis

aladentits Central Nervous System dizziness, vertigo, paresthesias, headache, xanthopsia. Hemaiologic leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia. Cardiovascular orthostatic hypotension (may be aggravated by aicohol, barbiturates, or narcotics).

natcoides). Hypersensitivity purpura, photosenstivity, rash, urticana, necrotizing angiitis (vasculitis, cutaneous vasculitis), lever, respiratory distress including oneumonitis, anaphylactic reactor Other hyperglycemia, glycosuna, hyperincemia, muscle spasm, weakness, restless-ness, transient blurred vision. Whenever adverse reactions are moderate or severe, thrazide dosage should be reduced.

DOSAGE AND ADMINISTRATION: The dosage must be determined by individual titration ee boxed warning) Hydrochlorothiazide is usually given at a dose of 50 to 100 mg per day The initia

Hydrochlorolinazide is usuality given at a cose of so to licitum ger day in eliminal dose of propranoloi is 40 mg kwice daily and it may be increased gradually until optimum blood pressure control is achieved. The usual effective dose is 160 to 480 mg per day. One to two INDEFIDE tablests twice daily can be used to administer up to 320 mg of pro-pranoloi and 100 mg of hydrochlorothizatile. For doses of propranoloi greater hana 320 mg, the combination products are not appropriate because their use would lead to an excessive does not the thazide component. When necessary, another anthyperent resize agent may be added gradually beginning with When necessary, another anthyperent resize agent may be added gradually beginning with

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overnosade or exaggerated response: The propranciol hydrochloride (INDERAL) component may cause bradycardia, cardiac failure, hypotension, or broncho-

spasm
The hydrochlorothiazide component can be expected to cause diuresis. Lethargy of

The hydrochloruhizande component can be expected to cause duriesis. Lethargo of varying degree may appear and may progress to coma within a few hours, with minimal degression of respiration and defined associated function, and in the absence of significant serum services of the control of t

suture suppurive measures as required individually to mainfain hydration, electrolyte bal-ance, respiration, and cardiovasculai-renal function.

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Microsurgical Treatment of Carpal Tunnel Syndrome*

OTAKAR R. HUBSCHMANN, M.D., FREDERICK J. WEISBROT, M.D., ABBOTT J. KRIEGER, M.D., Newark

The results of a microsurgical release of the median nerve in 21 patients suffering from carpal tunnel syndrome are described. Using this technique, the operation is performed under local anesthesia; it causes minimal morbidity and provides excellent functional and cosmetic results. Early surgical release of the median nerve in patients suffering from the carpal tunnel syndrome is recommended to relieve pain and paresthesia and to prevent irreversible damage to the neural structures caused by a longstanding compression.

arpal tunnel syndrome, a relatively common condition, usually is characterized in the early stages by pain and paresthesia in the first three fingers. This distribution of symptoms is classical, although occasionally the fourth and fifth fingers may be involved as well.³ The pain or paresthesia often is nocturnal and may radiate upwards into the arm; this may be confused with C5-C6 radiculopathy.

The diagnosis is confirmed by electromyogram (EMG) and the measurement of nerve conduction velocities (NCVs) which show a slowed conduction of the median nerve at the wrist.

The carpal tunnel syndrome is a result of mechanical compression of the median nerve as it runs through the tunnel formed by carpal bones, flexor tendons, and transverse volar carpal ligament. The relief of compression by a surgical section of the ligament is the treatment of choice.^{1,3,4}

Traditionally, the section of the carpal ligament has been performed under general anesthesia and a long incision, extending well into the forearm, was recommended.³ A large number of patients, particularly elderly persons or obese women in whom this syndrome occurs more frequently, may have been excluded from surgical consideration because of the inherent risks of general anesthesia. Nonsurgical procedures, such as prolonged splinting of the wrists or systemic or local administration of steroids are used which infrequently afford long-lasting relief. However, delay in the surgical decompression of the nerve may lead to unnecessary suffer-

ing and possibly to permanent and irreversible damage to the median nerve.4

Using microsurgical techniques, we have modified the classical surgical procedure for decompression of the median nerve in the carpal tunnel syndrome so that now it can be performed safely and effectively under local anesthesia. This results in a small, anatomical surgical incision with an almost invisible scar (Figure 1). The results of the surgical treatment of 21 patients over a period of three years are the subject of this communication.

MATERIALS AND METHODS

Twenty-one patients, 8 males and 13 females, were referred by other physicians for surgical release of the median nerve at the carpal tunnel. These patients were seen by a neurologist. All patients had one or more of the classical symptoms and all had unequivocal evidence of nerve velocity conduction slowing across the carpal ligament. The symptoms prior to undergoing surgical release lasted between three weeks and four years. Approximately 20 percent of these patients had various attempts at conservative treatment which included enforced rest of the hands by splinting of the

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# of			Sides I	nvolved	lable	Subjective	Objective Sensory	Opponens Muscle
Pts.	F	M	Unilat.	Bilat.	Pain/Paresthesias	Numbness	Loss	Atrophy
21	13	8	12	9	20	14	5	3

Postoperative Results (at four weeks)

# of	Relief of	Relief of Subjective	Relief of Objective
Pts.	Pain/Paresthesias	Numbness	Sensory Loss
21	20	12	3

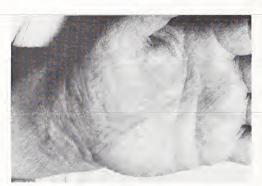


Figure 1—The appearance of the surgical incision three weeks after surgery (a close-up). Note that the incision is well healed and almost invisible without any scar development (same patient as in Figure 2).

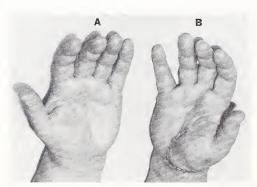


Figure 2A—The healed incision four weeks after surgery; 2B—Note the small anatomical surgical incision following the simian and wrist creases one week after surgery.

wrist, systemic or local administration of steroids, and, in two cases, introduction of vitamin B complex. The post-operative followup lasted six weeks to three years; some patients were lost to a long-term followup.

The most commonly encountered symptoms and surgical results are presented in the table.

After surgery, all 20 patients had relief of pain and paresthesias. Twelve patients had relief of subjective numbness and in 3 patients the objective sensory loss disappeared,



Figure 3—Note the focal area of compression and hyperemia at the area of maximum compression of the median nerve.

at least partially. In 2 patients the objective sensory loss persisted. There was no significant restoration of the muscle bulk in patients with severe atrophy; 2 such patients were followed for 6 and 8 months, respectively. The long-term results, however, may be significantly better because the time limit for meaningful restoration of function of a peripheral nerve is about 12 months. It is possible that some of the patients with objective findings improved further at a later date.

The surgical procedure always was done under local anesthesia usually supplemented by intravenous Valium® or Sublimate®. Magnifying surgical telescopes (3.5x) were used by the surgeon. The incision was made along the palmar (simian) crease and extended along the wrist crease without crossing it (Figure 2). No tourniquet was used. This allowed for intraoperative observation of vascular congestion that corresponded to the point of maximum compression of the nerve (Figure 3). If necessary, neurolysis was performed using the surgical telescope or microscope. After surgery a bulky dressing was applied and left on for 48 hours; then the patient was discharged. For most patients the postoperative pain was minimal and lasted no longer than 24 hours. The pain and paresthesias always disappeared within 48 to 72 hours, often immediately after surgery. The disappearance of subjective numbness or objective sensory loss substantially took longer and in some cases was incomplete. The patients were able to use the hand three to four days after surgery for most activities and were allowed to return to their routine work in three weeks.

In two cases, there was a mild postoperative swelling of the operated hand lasting four and seven days, respectively; this did not cause any serious discomfort and disappeared spontaneously. In one case, there was an induration of the skin edges and minimal discharge. This was treated as an infection with systemic antibiotics and local soaking and it also disappeared within five days. One patient developed a small hematoma in the palm of the hand which delayed her return to work for six weeks. No patient complained of pain in the surgical scar. Similarly, after the healing process was completed in three to four weeks, the surgical scar did not cause any limitation of wrist or hand motion. None of the patients complained of discomfort during surgery.

DISCUSSION

The mechanical compression of the median nerve at the carpal tunnel as the cause of gradual atrophy of thenar muscles, with subjective numbness without objective sensory loss, was demonstrated at autopsy by Marie and Foix in 1913.2 Learmonth, probably, was the first to decompress the median nerve in 1933 in an attempt to relieve such symptoms.1 It was Sutherland, however, who presented convincing evidence that in most cases it is not direct compression of the nerve but rather the compression of the vascular structures of the nerve that leads to edema, to protein exudation, and eventually to fibrosis, and is responsible for the neurological symptoms.4 His concept particularly is important because it explains both the nature and the gradual progression of the symptoms so commonly seen in patients with carpal tunnel syndrome, and it presents a strong rationale for early surgical decompression.

In the carpal tunnel, the median nerve particularly is vulnerable to compression as it runs between the retinaculum on one side and the unyielding bone structures on the other. According to Sutherland, in the earliest stages the compression of the venous outflow from the median nerve leads to hyperemia, general circulatory slowing, and congestion in the epineural and intrafunicular tissues. This further increases the pressure within the carpal tunnel and eventually leads to pathological changes in the nerve.

If untreated, this stage is followed by impairment of capillary circulation that leads to changes in capillary permeability and leakage of protein into the tissues. This leads to accumulation of the proteinaceous fluid in the endoneural spaces which interferes with both the nutrition and metabolism of the nerve fibers. If the pressure continues, the previously-described changes become permanent. The exudate serves as a matrix to fibroblast proliferation and the resulting intrafunicular fibrosis becomes irreversible. In the final stages, the nutrient vessel also becomes obliterated and the funiculi are replaced with what is essentially a fibrous chord.

These pathological observations provide a strong rationale for early aggressive surgical treatment of the carpal tunnel syndrome. The clinical counterpart of the early stages, which fully are reversible, is the occurrence of pain and/or paresthesias, which most likely are due to a random discharge from hyperexcitable axons. The appearance of subjective numbness followed by objective numbness is a sign of total suppression of the transmission along the sensory

pathways and probably corresponds to Stage II according to Sutherland. The appearance of a marked muscle atrophy is an ominous sign that, together with a longstanding objective sensory loss, probably indicates Sutherland's Stage III, which is irreversible. The resulting impairment in hand function and the loss of sensation of the three most important fingers of the hand are devastating, albeit preventable.

Our experience indicates that the surgical release of the median nerve at the carpal tunnel can be done safely and effectively under local anesthesia in all patients, including the very old. The risks of surgery are negligible and the postoperative morbidity is minimal. Once a diagnosis of a carpal tunnel syndrome is made we recommend that surgery under local anesthesia be performed within a few weeks, if rest and steroid administration are ineffective. The waiting period eliminates the group of patients suffering from an "acute" carpal tunnel syndrome which usually is the result of strenuous, unaccustomed exercises of the hand, swelling of the flexor tendon sheaths, and a secondary median nerve compression. Similarly, a period of nonsurgical treatment should be tried if this syndrome occurs during pregnancy since it may subside spontaneously after delivery. If the symptoms, particularly the pain and paresthesias, become bothersome, the release of the median nerve should be performed early since this procedure can be performed safely during pregnancy as well.

Early surgery will eliminate not only the totally unnecessary suffering for the patient but also will prevent the development of irreversible changes in the nerve structures which are not amenable to any treatment modality once they are established fully.

SUMMARY

A microsurgical release of the median nerve was performed in 21 patients suffering from carpal tunnel syndrome under local anesthesia. The results were influenced directly by the degree of neurological deficit present at the time of surgery. All patients who only had pain or paresthesia had excellent results, often noted immediately after surgery. The patients with objective evidence of sensory loss and muscle atrophy did less well; in some there were no significant improvements for the duration of the followup period. The microsurgical modification of the standard surgical procedure allows the procedure to be done under local anesthesia and provides for excellent cosmetic and functional results, providing the surgery is performed prior to the development of a permanent neurological deficit. Early surgical release of the median nerve in patients with carpal tunnel syndrome using this technique is recommended.

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Practical Considerations in the Treatment of Carpal Tunnel Syndrome

ALBERT DAVNE, M.D., Trenton*

The symptoms of median nerve compression at the wrist easily are recognizable in a high percentage of cases. Review of local anatomical details provides an understanding of the pathological process that can guide the physician to accurate diagnosis and treatment. Therapeutic trial with wrist splinting frequently will substantiate the clinical diagnosis without requiring electrodiagnostic methods. Properly executed, the surgical correction almost is 100 percent effective, complication free, and feasible on an outpatient basis.

arpal tunnel syndrome, the result of median nerve compression at the wrist, causes pain and progressive loss of sensation to the thumb, index, and middle fingers with gradual atrophy of the thenar muscle prominence. During the past 15 years we have witnessed a remarkable increase in the accurate diagnosis of this condition. Complaints previously thought to be the result of cervical nerve root irritation or thoracic outlet pressure upon the brachial plexus have been identified properly. In many patients who were empirically treated for "arthritis," median nerve compression at the wrist has been recognized as a superimposition upon otherwise nonsymptomatic arthritic changes. Since the first series of cases described by Cannon and Love in 1936, literally hundreds of reports have been published documenting variations of underlying pathology and alternatives in treatment.1

ANATOMY AND PATHOGENESIS

Figure I shows the local anatomy in diagrammatic fashion and illustrates the position of the median nerve and its relationship to other structures. The flexor tendons and the median nerve enter the palmar region from the forearm through a small passageway on the volar side of the wrist. They pass into the palm under the transverse carpal ligament, a tough, unyielding structure that essentially acts as a retaining device to prevent displacement of the tendon mass. The nerve is squeezed against the ligament when the wrist is

flexed, particularly when the fingers are flexed at the same time (Figures 1A and 1B). Any condition that gives rise to crowding of the passageway results in pressure on the nerve, first causing venous congestion within the nerve sheath and, then, secondary ischemia. Narrowing of the carpal canal by reason of previous injury (old wrist fracture) or crowding of the contents secondary to swelling of the tendon sheath will predispose to increased pressure on the nerve. Also, it follows that other conditions, such as diabetes, that produce decreased peripheral blood flow may predispose to the development of this syndrome. Note that the ulnar nerve enters the hand outside the carpal tunnel area and carries sensation from both sides of the fifth finger and the ulnar side of the ring finger (Figure 1).

The major portion of the median nerve at the wrist level is composed of sensory fibers; motor function is limited to the small recurrent branch that supplies some of the thenar muscles (opponens muscle, abductor pollicis brevis, and part of the flexor pollicis brevis). Atrophy of this muscle group is a classical sign of longstanding nerve compression. Also, it should be noted that the median nerve carries with it most of the sympathetic nerve supply, interruption or irritation that results in reflex pain and trophic changes. Completely dry fingertips sometimes proceeding to the point of ulceration is

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"Pain in the wrist and forearm with varying degrees of numbness in the fingertips, occurring during the night or early morning hours, sufficient to waken the patient, is probably the most common early complaint."

another manifestation of longstanding nerve compression.

Pain in the wrist and forearm with varying degrees of numbness in the fingertips, occurring during the night or early morning hours, sufficient to waken the patient, is probably the most common early complaint. The relaxed and flexed wrist position during sleep (flexor muscle tone being more prominent) seems to be the most common explanation. Quite often the onset of symptoms appears to develop independently of any acute episode; however, activities requiring repeated forceful flexion of the wrist can be a precipitating cause (garden weeding, painting, or strenuous pulling motion with fingers and wrist flexed).4 Most patients obtain relief by shaking the hand vigorously and exercising the fingers to "stimulate the circulation." Initial complaints of numbness in all the fingers usually are revised after attention is directed to possible absence of fifth finger involvement (ulnar nerve supplied).

In the beginning, the intermittent compression results in temporary ischemic episodes, resolving completely as the circulatory changes are returned to normal. However, repeated events result in secondary intraneural edema proceeding to varying degrees of fibrosis with permanent alteration of intrinsic blood supply and disruption of the normal nerve conduction impulse.² Proliferative tenosynovitis, as in rheumatoid disease, increases the volume of the contents of the carpal canal and results in increased pressure upon the nerve. Increases in tissue fluids as occurs in pregnancy also may precipitate the painful syndrome.⁵ Most often this condition is resolved spontaneously as the pregnancy term is completed.

DIAGNOSIS

Carpal tunnel syndrome is most common in the 40- to 60-year age group with a female: male ratio approximately 2:1. The dominant hand (right) is involved more frequently; however, bilateral involvement occurs in approximately 40 to 50 percent of the cases. While nocturnal pain and tingling of the fingers is classical, many patients complain of forearm and shoulder discomfort; the latter occurs in as many as 15 percent. Precipitating activities were work related in over 30 percent of the cases reported in this same series.

In the earliest cases, physical findings may be entirely within normal limits. Loss of normal sensation in the median nerve distribution is a later sign, beginning frequently at the tip of the middle finger. (This is because the nerve bundles within the nerve sheath that are closest to the ligament and are the most superficial are those that supply the middle finger.) Atrophy of the thenar muscle prominence also is a later manifestation.

In the absence of positive physical findings, several testing maneuvers may be employed. Complete flexion of the wrist (without pressure)—the hand being permitted to relax com-

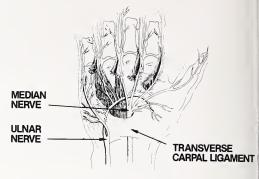


Figure 1-Volar surface of the wrist.



Figure 1A-Volar surface of the wrist.

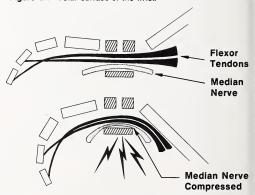


Figure 1B-Median nerve and adjacent structures.

pletely at the wrist with the elbow supported (as shown in Figure 2)—will bring on the characteristic feeling of discomfort within 60 seconds (Phalen's sign). If this position is prolonged, however, discomfort also can be produced in the normal hand. With the nerve already compressed partially, return of symptoms, however, is rapid.

Tapping lightly over the nerve (Tinel's sign) will evoke the pain in the hand and an application of a tourniquet to the upper arm will bring on similar complaints (Figure 3). All of these tests are of limited value in well-established cases where hypesthesia, atrophy, dryness of the skin, or other trophic changes already are present. The wrist flexion test appears to be the most reliable of these at the earlier period.

X-rays are of limited value unless a previous history of

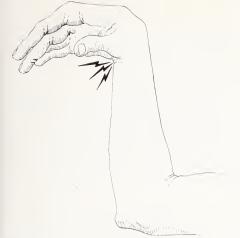


Figure 2—Phalen's sign.

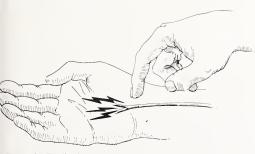


Figure 3—Tinel's sign.

trauma is obtained since the bone contour of the carpal canal will show no abnormality. Swelling of the soft tissues of the wrist just proximal to the joint may be noted. This is particularly true in patients where rheumatoid disease has resulted in proliferative tenosynovitis.

Electrodiagnostic tests (electromyography, motor and sensory nerve conduction studies) have contributed a major share in accurate definition of peripheral neuropathies. Differentiation from cervical root irritation and other areas of potential nerve compression can be made. They also are useful in determining whether nerve compression may be superimposed upon other known conditions such as rheumatoid arthritis or osteoarthritis and diabetic neuropathy. Both motor and sensory functions are tested, comparing both hands to established standards. Delay in opponens or abductor pollicis brevis muscle action after nerve stimulation above the wrist compared to normal values will be present in a significant number of cases. Sensory nerve conduction studies are performed along with muscle testing. 11,12

TREATMENT

Generally accepted treatment of carpal tunnel syndrome includes a conservative measure such as splinting (to prevent wrist flexion) in early cases. These splints are constructed with simple metal or orthoplast frames and removable velcro tapes to maintain the hand in a neutral or slightly dorsiflexed

"... surgical treatment is definitive, providing essentially complete relief in over 95 percent of patients with very few associated complications."

position. The splints are worn at bedtime with satisfactory relief in a high percentage of cases. Steroid injection (hydrocortisone or triamcinolone) into the carpal tunnel also has been employed with varying degrees of success. Care must be utilized to avoid injection directly into the nerve sheath.

The percentage of patients subjected to surgical release of the transverse carpal ligament varies considerably depending upon the source material. There is, however, complete agreement that surgical treatment is definitive, providing essentially complete relief in over 95 percent of patients with very few associated complications. Patients with long-standing marked sensory deficits and muscle atrophy will benefit from internal neurolysis under high-power magnification.⁷

CASE MATERIAL

The following report concerns 124 consecutive cases treated during the past five-year period in a practice partially limited to reparative hand surgery. Of these, 107 patients were treated surgically and 28 patients were treated bilateral-ly—making a total of 135 operative procedures. Some selectivity was present since these patients were referred primarily for specific surgical care because the diagnosis already had been suspected and other treatments tried by primary physicians, neurologists, and internists before referral. The case load, therefore, was not subject to overall screening of neurologically directed complaints as may be indicated under other circumstances. In this context, the cases have a remarkable consistency of clinical complaints and physical findings.

Table 1 shows the distribution of cases by sex and age group; they are consistent with other reports. The most frequent complaint was nocturnal pain proceeding to numbness, as already has been described. Additional complaints included shoulder and forearm pain, inability to write without discomfort, and difficulty in holding the automobile steering wheel for prolonged periods; discomfort in holding the telephone also was noted.

The duration of symptoms varied from two to three weeks to three to four years with an estimated average of one to two years. All details were not recorded with sufficient consistency to render tabulation meaningful. The general impression is that this group of patients (from a recent five-year period) had complaints of a lesser duration than cases described at an earlier period when symptoms often had been present for periods of five to ten years without diagnosis or relief.* Earlier recognition by referring physicians probably is responsible for the change. Associated conditions and past history are recorded in Table 2. Stenosing tenosynovitis and diabetes are prominent. Previous specific injury (fracture) was limited; however, nine cases were precipitated by pro-

Table 1 Age Range and Sex 124 Cases of Carpal Tunnel Syndrome

	124 Cases of Carpai	Tunnel Syndrome	
Age	Male	Female	Total
20 to 30		5	5
31 to 40	5	8	13
41 to 50	8	26	34
51 to 60	10	23	33
61 to 70	9	16	25
71 to 80	2	12	14
	34	90	124

Table 2 Previous History and Associated Conditions				
Stenosing Tenosynovitis 16				
Diabetes Mellitus	12			
Rheumatoid Arthritis	6			
Osteoarthritis	3			
Posttraumatic (Wrist Fracture)	2			
Recent Excessive Use of Hands	9			
Pregnancy	2			
Gout	1			

longed strenuous activity at home or during the course of employment.

The number of cases treated primarily by steroid injection prior to referral was small.8 Whether this inferred that steroid treatment had been successful thereby obviating the need for surgical decompression or that there had been a gradual shift toward earlier surgical treatment was difficult to determine. Six patients had preliminary treatment by splinting which was effective over periods ranging from four to six months.

Physical findings are recorded in Table 3. Thenar muscle atrophy was noted in only 11 cases, which is an indication of relatively short duration of symptoms on a comparative basis. Electromyography and sensory conduction time studies were performed in 47 cases; 3 cases had doubtful findings and 6 cases had negative findings. Many of these studies already had been done at the request of the referring physician and were presented at the time of initial examination. Of the 9 negative and equivocal cases, 7 cases had a favorable response to splinting.

Hypesthesia in the median nerve distribution and a positive wrist flexion test (Phalen's sign) were found in 21 and 18 patients, respectively.

SURGICAL TECHNIQUE

Our present management, in otherwise uncompromised patients, is to utilize the Ambulatory Surgical Unit, where the patients are admitted in the morning. Valium sedation or light anesthesia, supplemented by a local anesthetic, is used. After application of a tourniquet, the line of incision is infiltrated with 1 percent Xylocaine® and a longitudinal incision is made between the thenar and hypothenar eminence, more toward the ulnar side (Figure 4). Exposure of the transverse carpal ligament and underlying median nerve is accomplished under direct visualization. The proximal portion of the skin incision is not carried beyond the distal wrist crease; more often than not, it is stopped 5 to 10 millimeters short of that area. The proximal portion of the ligament is severed under careful observation by flexion of the wrist to gain easier access. This is followed by digital palpation of the proximal area to be certain that there are no

Table 3
Findings at Examination

Findings at Examination	
Hypesthesia — Median Nerve Distribution Thenar Muscle Atrophy	21 11
Positive Wrist Flexion Test (Phalen's Sign)	18
Tinel Sign-Positive	8
Electromyography and Sensory	38
Conduction Time Studies - Positive	
Electromyography and Sensory	
Conduction Time Studies — Negative	6
Electromyography and Sensory	
Conduction Time Studies — Equivocal	3
Atypical Clinical Picture with	2
Positive EMG Studies	
Good Response to Splinting - No EMG Done	39
Good Response to Splinting - Negative EMG	7



Figure 4-Incision for carpal tunnel syndrome.

residual constricting bands of the antebrachial fascia remaining. In most instances, a tourniquet can be maintained in position approximately 10 to 15 minutes without discomfort. After release, hemostasis is controlled carefully with electrocoagulation, followed by wound closure and application of a small volar splint. The fingers are free to move easily. Patients with bilateral disease have both wrists corrected simultaneously if there is assistance at home for several days. Splinting the wrist with complete freedom of finger motion permits easier attendance to personal habits and eating.

In longstanding cases with significant atrophy, hospitalization and more intensive anesthesia may be required. Internal neurolysis under magnification has been employed only for those cases that showed gross compression of the nerve upon surgical exposure. More often than not, the median nerve showed no gross evidence of anatomical change. A frequent finding has been a rather definite thinning of the small vessel on the volar side of the nerve directly under the position of the transverse carpal ligament. No cases of tenosynovectomy were performed.

RESULTS OF TREATMENT

Surgical release of the transverse carpal ligament relieved the pain and discomfort in over 98 perçent of the patients. Except for some discomfort at the operative site, most patients had relief within 24 hours. The return of sensory function was variable; the cases of longer duration with established sensory changes were slowest in improvement. These patients were not examined critically for recovery of two point discrimination; however, over 90 percent recovered full sensation within a period of six to eight months following the surgical procedure. Of the 11 patients demonstrating thenar muscle atrophy at initial examination, only 4

Table 4 Treatment of 124 Cases	
Nonsurgical Diagnosis only — no treatment Good Response to Splinting — no surgery Poor Response to Splinting — no return	3 9 5
Surgical Good Response to Surgery Patients with Positive Electrical Studies	38
Patients with Therapeutic Splinting Test Patients with Negative or Equivocal Electrical Studies	37 6
Good Response to Surgery — clinical diagnosis only	24
No Improvement Following Surgery	$\frac{2}{107}$

recovered muscle fullness clinically. Followup electromyographic studies were not performed.

There were no instances of painful postoperative neuroma of the palmar branch of the median nerve. One notable failure was experienced with a female patient with clinical carpal tunnel syndrome treated by splinting as a therapeutic test. An electromyogram had been performed one year previously; no recent electrical studies were done. This patient experienced significant postoperative pain at the base of the thumb without clinical findings suggestive of any known anatomical entity. A repeat sensory nerve conduction study, that was performed elsewhere, was reported as showing evidence of delayed conduction. Whether this was new or old could not be determined. Her complaints were suggestive of a causalgia-like syndrome; however, final determination was not possible since the patient was lost to followup. The other failure was in a 55-year-old female who had sustained a Colles' fracture with significant deformity followed by classical carpal tunnel syndrome. This case had a duration of at least four years with trophic changes of the fingertips. The patient continued to complain of discomfort after release of the ligament and internal neurolysis of the median nerve. There was no improvement of muscle function although the trophic changes were improved.

DISCUSSION

The diagnosis of carpal tunnel syndrome has become rather commonplace in the 1980s as a result of increased awareness by primary physicians. Simple clinical testing (wrist flexion test) and a knowledge of anatomical details render accurate diagnosis in a high percentage of cases. This group can be increased by splinting the wrist in a neutral or cock-up position at bedtime as an additional therapeutic test. Whenever the clinical picture was fairly certain, the splint also provided interim relief and acted as supportive evidence of the diagnosis. Given that carpal tunnel syndrome is the result of ischemic change in the median nerve when it is squeezed against the transverse carpal ligament, complete resolution of complaints following only the positional change at bedtime seems sufficiently indicative of a causal relationship to be a dependable test modality. The splint also was used in those cases with atypical complaints where electroymogram (EMG) and sensory nerve conduction studies either were negative or not entirely diagnostic. The latter group includes patients with diabetes mellitus wherein the electrical studies did not differentiate entirely an underlying

peripheral neuropathy from superimposed intermittent mechanical compression. The same is true for those patients with rheumatoid or degenerative arthritis. The relief by night splinting alone is a fairly good indication that surgical treatment will provide substantial benefit. Electrodiagnostic studies are not requested routinely as a matter of convenience and cost containment. They are perhaps best indicated in atypical cases or circumstances where objective documentation is desirable for medical-legal or other reasons

Steroid injection therapy appears to be disappointing. A recent study reported 41 cases treated with 0.75 cc Kenalog® along with 0.75 cc of lidocaine followed by three weeks of splinting; 22 percent were symptom free after 12 months of followup.9 The best results were in those patients with minimal clinical and EMG findings. The foregoing would favor early surgical treatment since the results are more dependable.

SUMMARY

A feeling of numbness proceeding to pain and weakness in the hand involving primarily the thumb, index, and middle fingers may be the result of pressure on the median nerve at the wrist. Most often these complaints are sufficient to waken the patient in the early morning hours; in the beginning symptoms may disappear as activity of the hand increases. This condition often has been treated as "arthritis"; however, today many more practitioners are recognizing carpal tunnel syndrome and recommending appropriate treatment.

Although splinting the wrist in a neutral or slightly dorsiflexed position will provide temporary benefit, permanent relief is essentially a matter of providing more room for a "squeezed" nerve by surgical release of an overlying tight ligament. Testing for the presence of this condition can be done quite easily without elaborate equipment. The surgical treatment often can be provided under regional anesthesia on an ambulatory outpatient basis. The results are over 98 percent effective and yield permanent relief. A series of over 100 cases is described in detail.

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THE MULTIVITAMIN/MINERAL FORMULATION

Maternal Deaths In New Jersey—1980

GERARD F. HANSEN, M.D., Hackensack, and MARGARET GREGORY, M.D., Trenton*

Fifteen maternal deaths were reported in New Jersey in 1980. The Subcommittee on Maternal Mortality concluded that four deaths were preventable. Two cases of sepsis and one case each of postpartum hemorrhage and of eclampsia were the causes of potentially preventable maternal demise. Suggestions are offered to prevent such future tragedies.

he mandate of the Subcommittee on Maternal Mortality is to investigate all deaths of pregnant women in our state and to use the information gained as an educational vehicle to prevent recurrences. In addition to the educational role, the Subcommittee searches for any weaknesses in our health care system that might predispose to loss of maternal life.

As long as we live in an imperfect society and are treated by human beings, the care that pregnant women receive can be improved. The physician, who contributes to the improvement of maternal health, is understandably reluctant when asked to justify publicly the care rendered to a pregnant patient who dies in his or her care. Nevertheless, an attempt must be made to improve care and it is only by the admittedly poor vehicle of hindsight and chart review by a panel of peers that improvement in care can be suggested. To perform its tasks adequately, the committee makes every effort to ensure patient and physician anonymity.

RESULTS

There were 95,000 (estimated) live births in New Jersey in 1980; 15 maternal deaths were reported and presented to the committee for study. During 1980, as a result of public concern over a cluster of maternal deaths in the northern part of this state, information on maternal death rates for individual institutions was given to all institutions with maternity services. This action meant that there was loss of

institutional anonymity, which may have affected the reporting of maternal deaths. Table 1 lists the classification mortality, using the reporting format suggested by the American College of Obstetricians and Gynecologists.² The remaining statistical data are summarized in Tables 2 through 5.

A non-maternal death is the death of a woman from causes not related to pregnancy or its management. There were two such cases in 1980. One patient, eight months pregnant, was shot through the heart following an altercation with an acquaintance. She was dead on arrival at the hospital. An emergency cesarean section resulted in the delivery of a stillborn infant. The second patient died of gastrointestinal hemorrhage following lye ingestion. No relation to her pregnant state was evident.

An indirect maternal death is an obstetrical death resulting from previously existing disease or a disease that develops during pregnancy, labor or the puerperium which is not directly due to obstetrical causes, but is aggravated by the physiological effects of pregnancy. There were four such deaths all of which were felt to be nonpreventable. One patient suffered a subarachnoid hemorrhage at seven months of gestation following a fall in a bathtub. Whether the

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	Table 1	
Clas	ssification and Mortality Rates	
Live Births (estimated) in 1980		95,000
Maternal deaths reported		15
Non-maternal	2	
Indirect	4	
Direct	9	
Rate (Indirect Only)	4.2/100,000 live births	
Rate (Direct Only)	9.5/100,000 live births	
Rate (All Causes)	15.8/100,000 live births	

	Table 2 eristics of Maternal Deaths e, Age and Prenatal Care	
Race White Other	Number 12 3	Percent 80 20
Age Less than 20 20 - 34 35 - 39	1 13 1	7 86 7
Prenatal Care Unknown Adequate Inadequate None	2 5 8 0	13 34 53 0

Table 3 Parity and Duration	of Pregnancy	
Parity 0 1 - 3 4 - 6 Unknown	Number 6 4 1 4	Percent 40 27 7 26
Gestational Age Less than 20 weeks 20 — 28 28 weeks through puerperium	1 1 13	7 7 86

hemorrhage was a cause or effect of the fall could not be determined. Pneumonia in a patient lacking protective antibodies was felt to be nonpreventable. There were two cases in which neither etiology nor fault in management could be determined.³ Inability to obtain adequate records precluded arriving at a precise diagnosis in each case.

A direct maternal death is an obstetrical death usually from complications of the pregnancy, labor or puerperium and from intercessions, omissions, incorrect treatment or from a chain of events resulting from any of these complications. Five such cases were ruled nonpreventable by present standards of care. One patient had a pulmonary embolism and one had an amniotic fluid embolism; proper therapy was promptly instituted. One patient was dead on arrival in the emergency room and postmortem examination revealed death by asphyxia due to aspiration of gastric contents. No evidence of previous seizure disorder or substance abuse could be documented. The fourth death was due to a sagittal sinus thrombosis in a postpartum patient not receiving medication for suppression of lactation. The neurologic consultant felt that this was a direct obstetrical death and

Tabl Classification o	entability	
Non-maternal Maternal Indirect Non-preventable Preventable Direct Non-preventable Preventable Preventable Prieventable Physician factor Patient factor	 9 4 0	<u>2</u> <u>13</u>

	Table 5	
	Causes of Death	
١.	Non-Maternal 2	
	Suicide	1
	Homicide	1
11.	Maternal 13	
	A. Indirect 4	
	Non-preventable	
	Subarachnoid hemorrhage	1
	Pneumonia	1 2
	Unexplained	2
	B. Direct 9	
	1. Non-preventable 5	
	pulmonary embolism	1
	amniotic embolism	1
	hemorrhage ectopic pregnancy	1
	asphyxia	1
	saggital sinus thrombosis	1
	2。Preventable 4	
	Eclampsia	1
	Postpartum hemorrhage	1
	Sepsis	2

was not preventable. The fifth patient died of intraperitoneal hemorrhage following the rupture of a cornual pregnancy at four months of gestation. The patient had not sought prenatal care and died shortly after arrival in the emergency room.

Four direct maternal deaths were felt to have been potentially preventable. In two cases of sepsis, there was a delay in diagnosis, failure to obtain proper cultures for microbiological examination, and lack of aggressive and proper antibiotic treatment. The patient who died of eclampsia received less than the standard anticonvulsive and antihypertensive therapy. Whether or not this was a significant factor in the outcome is at least questionable. In the case of postpartum hemorrhage, a cervical laceration was not diagnosed promptly.

"The Subcommittee recommends that an attempt should be made to require that all maternal deaths be subject to postmortem study."

'In 1980, only 9 of the 15 maternal deaths had a postmortem examination.'

RECOMMENDATIONS

The following observations are offered after a review of the maternal deaths in 1980:

- 1. Hydration of a patient in labor is important. A dehydrated patient with hemoconcentration may be at increased risk for clot formation. Similarly, the use of monitors that unnecessarily may restrict movement of a patient may result in venous stasis and clot formation.
- 2. When evaluating a postpartum patient who is bleeding (or even as part of a normal examination after the delivery of the placenta) the following steps should be taken:
- (a) The uterus should be explored manually to ensure no placental fragments or membranes remain. Examination of the placenta alone is often of little or no help.
- (b) The cervix should be visualized by using "ring forceps" to go around the entire cervix.
- (c) The entire vagina and periuretheral area should be visualized for lacerations.
- (d) A careful rectal examination should be performed after the repair of the episiotomy to rule out developing hematoma. A patient who, within an hour or two of delivery, complains excessively of pain in the episiotomy site should have a vaginal and rectal examination to insure that no hematoma is developing.
- 3. A check for foul-smelling lochia or other evidence of infection should be part of daily postpartum nurse and physician visits. Prompt, aggressive and correct antibiotic coverage should be undertaken when indicated.
- 4. The Subcommittee recommends that an attempt should be made to require that all maternal deaths be subject to postmortem study. This should involve no extra expense to the family of the decedent and could be accomplished by a regulation of the chief medical examiner or by statutory amendment. In 1980, only 9 of the 15 maternal deaths had a postmortem examination. In the past, it has been noted that a maternal death thought clinically to be due to anesthesia was found on postmortem examination to be the result of an undetected congenital anomaly. Such a finding was helpful to all concerned.

5. The Subcommittee considered the continuing difficulty in obtaining adequate hospital and physician records to aid them in arriving at a proper evaluation of each case history. In the future, each physician of record in a maternal death will be asked to complete a case history form.

 Sonography should be considered as a useful adjunct in the early diagnosis of ectopic pregnancy. Early prenatal care and examination are important to prevent the tragedy of intraperitoneal hemorrhage.

intrapernonear nemorrnag

SUMMARY

The study of the Subcommittee on Maternal Mortality in analyzing maternal deaths in New Jersey in 1980 demonstrated that the triad of hemorrhage, sepsis and pregnancy-induced hypertension are still a cause of maternal demise. Of the 15 maternal deaths studied, two cases of sepsis and one case each of postpartum hemorrhage and of eclampsia potentially were preventable.

A recommendation to examine in a systematic order the postpartum patient who is bleeding excessively was made. Early diagnosis and aggressive treatment with the appropriate antibiotics of the patient with sepsis were stressed. The use of adequate dosages of anticonvulsant medications would help prevent eclampsia. The Subcommittee's task would be easier and society better served if postmortem examination of all maternal deaths was performed.

Acknowledgements—This article is a distillate of the labor of the chairman and members of the Subcommittee on Maternal Mortality and the State Department of Health. Their efforts are gratefully acknowledged.

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rnamely hyponatremia, hypochloremic alkalosis and hypokalemia. These determinations are particularly important when there is excessive vomiting or diarimportant when there is excessive vomitting or orar-rhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Insulin requirements may impaired renal function. Insulin requirements may be affected in diabetics. Hyperglycemia and glyco-suria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Ortho-static hypotension may occur. Dilutional hyponatre-mia may occur. Adverse Reactions. Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaunelipsastic distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, verigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urlicaria, other skin rashes, dryness of mouth, hypokalemia, hyponatemia, hyponathoremia alkalosis, hyperuricemia, hyperglycemia, glycomia, giased BUN or creatinine, latique, muscle cramps or spasm, weakness, restiessness, chills, and acute gouty attacks, Usual Initial Once-Daily Dosages; mild to moderate essential hyperension—2% to 5 mg, dedma of cardiac failure—5 to 10 mg, edema of renal disease—5 to 20 mg, Dosage adjustment is usually necessary during the course of therapy. How Supplied: Tablets, 2½, 5 and 10 mg.

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K DIVISION JEMWALI

Early Developments in Sports Medicine

MAX. M. NOVICH, M.D., Perth Amboy*

Leadership in the sports medicine movement by the medical profession, in cooperation with athletic, biomedical, and recreational professionals, was necessary to halt the alarming decline of health and physical fitness among Americans. Our sedentary, push-button lifestyle now is giving way to an active and sportsminded way of life, with physicians making a vital contribution.

ince pre-Christian times, physicians have been in the forefront of the development of a body of knowledge now called sports medicine; it includes such topics as recreational exercise, massage, physical exercise to prepare for military combat, therapeutic exercise (medical gymnastics), and conditioning exercise, such as walking or running, for various diseases. Among the pioneers was Galen of Greece who, in addition to recommending exercise in moderation for many forms of disease, made many fundamental discoveries and valid contributions to exercise physiology. He might have been the first team physician recorded in literature, having served in this capacity with Roman gladiators. Hippocrates made references to the value of exercise, even recommending this activity for mental diseases. The references proliferated and included medical rehabilitation by Akrelianus (fifth century A.D.) who recommended exercise during convalescence from surgery.1 The interest in physical activity and formalized exercises became intensified in medical gymnastics during the Renaissance because of Bergerius (1370-1440), a professor of logic at the University of Padua. He advocated the inclusion of regular physical exercise in the education of children, an idea that was incorporated as an indispensable adjunct to education for the first time since classical times. In 1910, McKenzie developed several categories of rehabilitative exercises.2

The inclusion of exercises in the school curricula certainly has changed the course of education both here and abroad.

Many European countries including Italy, France, Great Britain, Sweden, Russia, and Germany contributed to the world literature of sports medicine long before its recent upsurge.

In the 16th century, Michel Montaigne in his "Essay of the Education of Boys" espoused the concept of training the body and mind together for successful development of men. The concept equally is valid for women. Increasingly it has become clear that a sound mind operates most efficiently in a sound body. Although physicians recognize that athletes have special medical needs that differ from those of other people, the first formal evidence of medical interest in physical exercises and related problems occurred at the World Hygiene Exposition in 1911 in Dresden, Germany, when Mallwitz established a section titled "Hygiene of Physical Exercise." In 1913, a medical congress concerned with sports convened in Paris and dealt chiefly with physical therapy and the physiology of exercise. The war brought an end to these meetings, which were not revived until February 14, 1928, with a meeting of 33 physicians in St. Moritz, Switzerland, during the 2nd Olympic winter games. The physicians represented 11 nations that competed in those

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"There was a crying need for a leadership role by physicians for the benefit of physical and health educators, coaches, and recreation specialists."

winter games. At that meeting they formed a committee that led to the First International Congress of Sports Medicine in Amsterdam at the 9th Olympic summer games. There were 281 physicians and physical education specialists representing 20 countries in attendance. The Association Internationale Medico-Sportive (A.I.M.S.) was formed by that group. This later was replaced in 1933 by the Federation Internationale Medico-Sportive et Scientifique (F.I.M.S.) which is now the dominant worldwide sports medicine body.3 Many more international congresses of sports medicine since have been held throughout the world. F.I.M.S. started to publish its own official periodical, Journal of Sports Medicine and Physical Fitness, in 1961. Presently, it is published as an English quarterly (French and Spanish abstracts are included) edited by Guiseppe LaCava of Rome, a physician with a great interest in and understanding of the sport of boxing. F.I.M.S. also published a Basic Handbook of Sports Medicine with contributions by 42 leading sports physicians. This book was given to the International Olympic Committee (I.O.C.) during the 21st Olympic summer games in Montreal as a contribution to "Olympic Solidarity" and to support sports medicine programs throughout the world. F.I.M.S. also has affiliations with the International Olympic Committee, the International Sports Federations, and World Health Organizations.4 The International Council of Sport and Physical Education of UNESCO, which was founded in 1956 under the leadership of Ernst Jokl, works independently but has a liaison with F.I.M.S; Jokl is a pioneer sports physician.

In 1964, the Olympic Medical Archives Committee, of F.I.M.S., in cooperation with the International Olympic Committee, the World Health Organization, the International Medical Commission, and the National Sports Medical Associations, sponsored an exhibit-project at the Tokyo Olympics. The purpose was to collect scientific clinical data, including lifelong medical histories, the effects of long-term training and competitive processes on organ systems, and records of comprehensive medical examinations including special tests of Olympic contestants. The project director was Joseph B. Wolfe, medical director of Valley Forge Heart Hospital.5 It did not succeed since only 22 nations submitted records on 1,232 athletes. Unfortunately, the United States Olympic Committee and its athletes were not ready for this new dimension in medicine. Although a substantial amount of clinical information now has been collected from the 1964, 1968, and 1972 Olympic games, it rests at the International Olympic Committee headquarters in Lausanne, Switzerland.6

DEVELOPMENTS IN THE UNITED STATES

There was a dramatic change in the attitude of the United States Olympic Committee, which now supports sports

"In 1954, a monumental year, Kraus and Hirschland published two very important articles describing the decline in physical fitness in this country."

medicine through its United States Olympic Council on Sports Medicine. The concept of sports medicine had been around for quite a while. What happened to bring on this startling change? Although health measures were advocated by physicians, physical educators, recreation specialists, and others, they were done independently of each other. Coaches and physicians were even farther apart than were other health professionals.7 Few physicians stressed preventive medicine. Physicians were deficient in knowledge about nutrition and exercise physiology. The American Association for Health, Physical Education, and Recreation (now called the American Alliance for Health, Physical Education, Recreation, and Dance) was the policymaking body for health specialists, physical educators, and recreation specialists. Branches were established throughout the entire United States on a state level and in some states on a district level. In New Jersey, there are six districts. These professionals play a large role in the health, physical education, and recreation of our school population, yet this very large group of health professionals had no official affiliation with the American Medical Association. There was a crying need for a leadership role by physicians for the benefit of physical and health educators, coaches, and recreation specialists. It was athletics, sports, and recreation under the mantle of "sports medicine" that finally brought these health-oriented professions together. The nursing profession, playing a major part in providing health care for people under the direction of physicians, was not amplifying this affiliation by involving itself in sports medicine. The training profession now has identified itself as a very important part of the medical backup for athletes on teams as well as in other areas of health care delivery. This is true now of registered physical therapists and professional nutritionists.

On April 22, 1954, the American College of Sports Medicine was founded by a multidisciplinary group consisting of 11 physicians, physiologists, and physical educators who were attending a convention of the American Association for Health, Physical Education, and Recreation. The membership averaged about 2,000 for about 20 years. It now has risen to 8,000 because of the fitness boom. It is the world's largest professional and scientific society involved with sports medicine. It publishes a monthly Sports Medicine Bulletin and a quarterly journal, Medicine and Science in Sports and Exercise.8

In 1954, a monumental year, Kraus and Hirschland published two very important articles describing the decline in physical fitness in this country. These two articles did much to shake our government and medical education leaders out of their complacency about the state of fitness of our youth. Kraus and Hirschland, using six exercise tests devised by Kraus and Weber, showed that 4,264 Americans did not compare favorably with 2,870 European children

from comparable urban and suburban areas in agility, flexibility, and muscular strength. The failure rate for the Americans was 57.9 percent but only 8.7 percent for the Europeans. This was quite a blow to the Americans who still were fantasizing about our legendary sport heroes of the early part of the century. Apparently the Marshall plan not only had helped our European allies and enemies to recover economically but also improved the prowess of their amateur athletes, as evidenced by our dwindling Olympic medal count as compared to theirs. Even boxing11 and track and field were starting to show a decline secondary to a lessening of our physical fitness. Although the medical profession generally was unaware of the decline in physical fitness, the physical and health educators were not. For years Paul Hunsicker and his group at the University of Michigan Department of Physical Education were aware of this decline and had been working on a set of physical standards to assess and upgrade fitness in our youth.

THE PRESIDENT'S COUNCIL ON YOUTH FITNESS

This lack of fitness was blamed on the high degree of mechanization in our daily life. President Eisenhower called the test findings of Kraus and Weber alarming. He and Vice President Nixon hosted exploratory meetings in 1955 and 1956 with national leaders in government, medicine, medical research, education, physical education, public health, communications, and civic and youth programs to find ways to upgrade the physical fitness of Americans. This was the first official recognition by top federal officials of the decline of our physical fitness and the need to upgrade it. On July 6, 1956, President Eisenhower issued an Executive Order establishing the President's Council on Youth Fitness.¹²

The main goal of the Council was to identify the fitness problems and activate programs to promote specific solutions. Because of the lowered physical demands of our advanced technological society, the ability of the people to participate in athletic and recreational activities lessened. We had become a nation of spectators, leaving the playing of sports and games and other physical activities to a small group of determined and well-coordinated people. This attitude of "spectatoritis" led to the risk of serious medical disorders in the general population. The President's Council was mandated to act as a catalyst to get out the message concerning our decline in physical fitness locally, statewide, regionally, and nationally.13 It also had a responsibility to stimulate physical fitness activities of existing organizations such as the Y's, Boy Scouts, Boy's Clubs, physical education schools, recreation and sports clubs for youth and adults, and others. The Council developed the National Fitness Test and methods for testing, data collecting, and evaluation.14 It sponsored demonstration centers and regional physical clinics. It was able to enlist private support for fitness programs and preparation of films and publications. The President's Council also sponsors Presidential Physical Fitness Awards to stimulate fitness programs in schools and colleges. Presently, the President's Council publishes a quarterly journal, Physical Fitness/Sports Medicine. One of the public information activities provides 500 of the largest newspapers in America with interesting material for a weekly fitness column. The President's Council also enacted legislation to encourage the states to set up their own governor's council on physical fitness. Former Governor Brendan Byrne established New Jersey's council in May, 1980. There are now 30 states with governor's councils on physical fitness; 11 states are considering formation of similar groups.

The President's Council on Physical Fitness and Sports, in affiliation with the American Medical Association, the Department of Defense, and the Department of Health and Human Services, held the first White House Symposium on Physical Fitness and Sports Medicine on October 11 and 12, 1980, in Washington. This meeting was designed for primary care physicians, physical educators, coaches, trainers, physical therapists, fitness directors, nurses, and other allied health professionals who provide for the medical screening, training, and conditioning of athletes and others interested in physical activity for health and enjoyment. Special groups, such as the elderly and the handicapped, also were discussed in terms of their needs for physical activity, games, and sports. Another such program was held November 22 and 23, 1981.

AMERICAN MEDICAL ASSOCIATION AND SPECIALTY ORGANIZATIONS

In 1954, the American Medical Association formed its first Committee on Injuries in Sports under Augustus Thorndike. With the recent involvement of physicians in sports medicine and the need for doctors to be able to communicate and understand their athlete-patients prior to examining and treating them, the medical profession had to establish closer ties with athletes, trainers, coaches, other athletic personnel, and the parents of the younger patients. This meant learning to understand training room jargon, a colorful and sometimes even explicit language not precise enough to aid the doctor in treating the patient. Accordingly, a very informative and useful book, Standard Nomenclature of Athletic Injuries, was prepared by the Advisory Panel on Standard Nomenclature of Athletic Injuries of the AMA Council on Scientific Affairs. Trainers, coaches, and even athletes are speaking less training room language; physicians are communicating better.

Since 1947, the New Jersey State Interscholastic Athletic Association has invited physicians to give talks to its members on the medical aspects of injuries and disorders associated with sports. These presentations usually are held at the annual spring athletic clinics. In 1978, the New Jersey Interscholastic Coaches Association began a similar program. Each year at the Annual Coaches Spring Athletic Conference, a sports medicine program is featured. The number of registrants continues to increase and the program is getting to be a popular part of the total presentation. The New Jersey Interscholastic Coaches' Association is possibly the only state coaches' group with a sports medicine committee chaired by a physician.

The American Orthopaedic Society for Sports Medicine, an affiliate of the American Academy of Orthopaedic Surgeons, is the fastest-growing, medically oriented sportsmedicine organization in our nation and exerts a tremendous leadership role in sports medicine. Founded in 1972 by 50 orthopedic surgeons, it now numbers 600 members and is growing. Most of the team physicians of professional and nationally ranked intercollegiate athletic teams are members. The purposes of this society are to foster, promote, support, augment, develop, and encourage research in sports medicine and its many ramifications; to develop and encourage teaching by publishing and copywriting educational materials; to provide specialized training for orthopedic surgeons and others; and to encourage education in allied professions in the prevention, recognition, and treatment of sports injuries. Although orthopedists dominate, affiliate membership is available to other physicians, physiologists, registered

"The old stereotype of the trainer running into the field with a towel over his shoulder and a bucket of water no longer pertains."

physical therapists, trainers, nutritionists, dentists, educators, researchers, and writers. Physician members are located all over the world. This society probably will become the leader in sports medicine in our nation. Its official journal is the American Journal of Sports Medicine. Its Committee on Research and Education, in cooperation with the American Academy of Pediatrics, recently published Orthopedic Screening Examination for Participation in Sports. Although geared for advisory athletic personnel in Little League organizations, this booklet also can be used as a guideline for coaches and physical instructors at early levels of other sports and fitness programs. Because the American Orthopeadic Society for Sports Medicine is expanding its activities and looking into the future, it has targeted medical groups such as the American Academy of Pediatrics and the Academy of Family Physicians as adjuncts in promoting sports medicine programs and getting out the message of athletics and fitness to other groups including allied health organizations, students, parents, and the general public. Competitive and recreational sports and other physical activity should be beneficial, enjoyable, and relatively safe.

NEW JERSEY

The Medical Society of New Jersey established a Committee on Medical Aspects of School Sports in September, 1978. The New Jersey Orthopaedic Society has an active sports medicine committee. Both these medical groups have liaisons with the New Jersey Interscholastic Coaches' Association. These groups continue to advocate safety procedures in sports to lessen the risks without eliminating the fun and benefits of participation. Our state, as well as our national medical committees, continues to advocate better and more comprehensive preparticipation physical examinations, better equipment, safer facilities, and rule changes. The medical profession urged elimination of tackling techniques such as spearing and goring, which have led to almost epidemic numbers of quadriplegics. Recent rule changes in blocking and tackling in football should reduce this type of injury. Physicians were responsible for the elimination of rubber suits and saunas for wrestlers and other athletes who have to "make weight" to participate. However, physicians must recognize that it is wise to make changes in rules and equipment to make a sport safer, but this must be done without lessening the enjoyment of the participants. There always will be some risks with any sport. Young people like adventure, and playing sports is an adventure for them. They will stop participating in sports that are completely injuryproof. Physicians should be pleased that every physical education meeting in this country of any magnitude has a participating section on sports medicine. Health educators look to the medical profession for leadership.

The training profession plays a very important role in the

implementation of the medical care of athletes. ¹⁵ In the United States there is a National Athletic Trainers Association (NATA) of certified trainers who set up standards for the education and certification of members. The old stereotype of the trainer running into the field with a towel over his shoulder and a bucket of water no longer pertains. Now trainers have a good basic background in the life sciences and courses in exercise physiology, kinesiology, remedial exercises, and the prevention and care of athletic injuries. The knowledge and skills of today's athletic trainers include anatomy, physiology, psychology, hygiene, and nutrition as well as taping, conditioning, prevention of injury, and use of protective equipment.

There are now 49 universities and colleges in 28 states with curricula approved by the NATA leading to a professional certification in athletic training. In New Jersey, William Paterson College offers such a curriculum in Athletic Training and Sports Medicine. The Professional Education Committee of NATA annually runs professional preparation conferences specifically designed for educators of athletic training and sports medicine. Certified athletic trainers who are not educators also attend. This conference provides continuing education in current techniques for the prevention and care of athletic injuries as used by certified trainers. The broad range of subjects, and the techniques that are discussed equally are helpful to team physicians and allied health professionals involved in the care of athletes.

About 6,500 trainers nationwide are now an integral part of the medical team of professional, university, college, and high school athletic teams. Wherever there is an organized athletic team in an educational institution, there should be certified trainers. In New Jersey we have approximately 100 trainers, 65 of whom are certified, for over 450 schools with athletic teams. Lack of trainers is a problem in the nation generally.

The major medical journals devoted exclusively to sports medicine are *The Physician and Sportsmedicine* and *The American Journal of Sports Medicine*. The latter is the official publication of the American Orthopaedic Society for Sports Medicine. Periodically *JAMA* and other medical journals carry articles about this fastest-growing subspecialty in medicine.

SUMMARY

Athletes have special medical needs that best can be filled by physicians in cooperation with coaches, trainers, research physiologists, physical educators, and other professionals. The Federation Internationale Medico-Sportive, founded in 1933, is the dominant worldwide sports medicine body.

The alarming decline in health and physical fitness of our population caused the American Medical Association, along with other professional health-oriented organizations, to exert tremendous pressure to halt this decline. Among cooperating organizations are the American College of Sports Medicine; the American Alliance of Health, Physical Education, Recreation, and Dance; The President's Council of Physical Fitness and Sports; the National Athletic Trainer's Association; the American Physical Therapy Association; and the American Dietetic Association. The declining numbers of Olympic medals won by Americans has led to acceptance of the sports medicine concept by the United States Olympic Committee. The American Orthopaedic Society for Sports Medicine is now the fastestgrowing, medically-oriented sports medicine body in our country; it is dedicated to making recreational and competitive sports more beneficial, enjoyable, and safe.

Athletic, governmental, and medical organizations in New Jersey are making contributions to sports medicine, that is a subject of great interest today.

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THE ELECTROCARDIOGRAM

The Atrial Repolarization Wave and Spurious ST Segment Deviation*

SHASHI K. AGARWAL, M.D., and JACOB I. HAFT, M.D., Newark

he rhythm strip (lead II, continuous) was recorded from a 47-year-old white female during the recovery period immediately following an elective cholecystectomy. The dysrhythmia aborted spontaneously after a few minutes. Twelve lead electrocardiograms before and after surgery were within normal limits.

The patient denied any past history of cardiovascular disease. Physical examination revealed a midsystolic click on auscultation of the heart. M-mode and 2-D echocardiograms were consistent with mitral valve prolapse. A maximal stress test and 24-hour ambulatory electrocardiogram were within normal limits.

INTERPRETATION OF THE ELECTROCARDIOGRAM

The basic rhythm is sinus at a rate of 70 per minute. The P waves reveal ventriculophasic arrhythmia (P-P intervals encompassing a QRS complex are shorter compared to those without a QRS complex). There is a variable AV block of the Wenckebach type (strip B; QRS complexes 2-4), with frequent junctional escape beats (E). The latter interfere with AV nodal conduction resulting in periods of AV dissociation. This interference is inevitable because the junctional rate is faster than half the sinus rate in the setting of periodic 2:1 AV nodal Wenckebach rhythm. The P waves are followed by a negative afterwave of about 1 mv depth, representing the atrial repolarization wave (Ta) (see arrow). As a result of the variable P-QRS relationship, some of the QRS

complexes become superimposed on the Ta wave resulting in depression of the initial portions of the ST segment. (Compare the last two QRS complexes of strip C.)

DISCUSSION

Deviations of the ST segment usually are considered abnormal. Recent reviews have drawn attention to several disease states that tend to alter the ST segment morphology. ^{1,2} Uncommonly, ST segment deviation may occur in the absence of organic heart disease, e.g. the early repolarization syndrome.³ Although baseline artifacts may result in recognizable shifts, the role played by the atrial repolarization wave in similar pseudochange in the ST segment is more important and less well appreciated.

Although Kraus and Nicolai noted this atrial afterwave as early as 1907,⁴ studies on this electrocardiographic phenomenon have been few.^{5,6} This paucity stems partly from the difficulties encountered in recognizing and studying the Ta wave. The normal Ta wave is of small amplitude and tends to be masked by the superimposed QRS complex during normal AV conduction. Therefore, its recognition usually is limited to patients with a prolonged PR interval or AV dissociation. Under normal conditions it is best noted in the limb leads with its magnitude directly proportional to the

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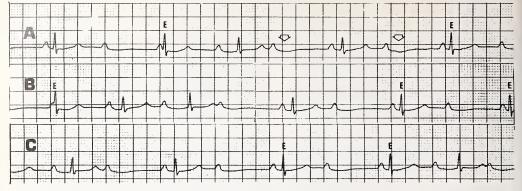


Figure 1-Lead II, continuous.

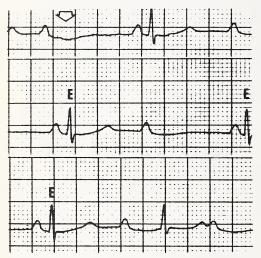


Figure 2-Lead II, enlarged segment.

surface area of the P wave and its vectorial direction opposite to the P wave. Since its average duration is about 276 msec in lead II,7 it is obvious that in the absence of a major conduction disturbance, the latter part of the Ta wave will distort the early portion of the ST segment. This spurious ST segment deviation may be recognized if a smooth concave upward curve results on connecting the PQ segment with the ST segment. Fortunately the small (20-30 mv) normal Ta amplitude distorts the ST segment only insignificantly.

The normal Ta wave varies with age,8 heart rate,9 and neurogenic impulses.10 During diseased states, e.g. atrial infarction,2 the wave not only may increase in duration and amplitude but may undergo a directional change and have a significant effect on the ST segment. Havashi et al.7 illustrated a case of pseudo ST segment depression caused by an abnormal Ta wave. Spurious ST segment elevation caused by the Ta wave has been noted by Puletti et al.11 and Emery et al.12 The presence of variable PR intervals in the elec-

trocardiogram of our patient provided a unique opportunity to recognize the Ta wave and to demonstrate its effects on the ST segment. The cause of the dysrhythmia as well as the prominence of the Ta waves was thought to be related to an increase in the vagal tone secondary to surgery. The influence of neurogenic stimulation on the atrial repolarization wave leading to ST distortion was demonstrated by James et al. under experimental conditions. ¹⁰

SUMMARY

The atrial repolarization wave represents the recovery process of the electrical activity of the atrium and is a normal electrocardiographic phenomenon; although it is difficult to recognize under normal conditions in disease processes, it may gain enough prominence to alter significantly the ST segment. Knowledge of this electrocardiographic phenomenon should help avert false interpretation of ST segment deviations.

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CASE REPORTS

Dissociation Between Stainable Marrow and Liver Iron Following Iron-Dextran Therapy*

MAJID ALI, M.D., A. OLUSEGUN FAYEMI, M.D., SALVATORE LARAIA, VICTORIA KASPER, R.P., M.S., Teaneck

The paradox of hepatosplenic siderosis and marrow-iron depletion has been observed in dialysis siderosis and cirrhosis of the liver. A similar dissociation between hepatic and marrow-iron stores following intravenous iron-dextran therapy is described in a 34-year-old female. The data support the concept of "sequestered hepatic iron"—hepatic iron that readily is not released and inflicts insidious hepatocellular injury.

he paradox of hepatosplenic siderosis associated with marrow-iron depletion following intravenous iron-dextran therapy has been described recently in patients on long-term maintenance hemodialysis. This phenomenon may occur up to 70 months following the parenteral iron administration. A similar dissociation between the hepatosplenic and marrow-iron stores also has been observed in some patients with cirrhosis. Serum ferritin in this setting correlates well with the total body iron stores but not always with marrow iron.

The morphologic data of the patient described here extend the range of iron studies cited above. These data suggest that this pattern of tissue-iron distribution (ample in liver and diminished or absent in marrow) always may not be related to chronic renal failure or chronic liver disease. Rather, it shows the risk of prolonged hepatic siderosis following intravenous iron-dextran therapy, and supports the concept of "sequestered hepatic iron," 1,2,3 long-term hepatic storage iron that readily cannot be mobilized to the bone marrow for erythropoietic function.

CASE HISTORY

A 34-year-old woman was hospitalized because of extreme weakness, inability to walk, and tinnitus. Diabetes mellitus was diagnosed at the age of 5 years; she had been hospitalized on several occasions for the control of diabetes mellitus, retinopathy with loss of vision, and neuropathy.

Episodes of severe depression, anorexia nervosa with extreme emaciation, and anemia also had necessitated hospitalization. She was amenorrheic for the ten years preceding final admission.

Iron-Dextran Therapy—Six-and-a-half months prior to admission, she was hospitalized for uncontrolled diabetes mellitus, abdominal distress, and anemia. She was severely malnourished, weighing only 70 pounds. The diagnosis of hypertrophic gastritis was established through endoscopic examination and a gastric biopsy.

Her eating habits were extremely poor and, against medical advice, she had consumed large quantities of various laxatives including Dulcolax® suppositories, Senokot®, and Peri-Colace® for several years. In addition, she regularly took 10 ml to 20 ml of 10 percent potassium elixir chloride daily.

The pertinent hematologic data were as follows: hemoglobin, 7.9 Gm/dl; hematocrit, 27.2%; MCV, 78 u³, WBC, 11,500/cu mm with 70% polymorphonuclear

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"Following intravenous injection, radiolabeled iron dextran is cleared from the plasma in about ten days."

"The liver, spleen, and the bone marrow are the principal sites of clearance..."

leucocytes and 29% lymphocytes; serum iron, 3 mcg/dl; total iron binding capacity, 321 mcg/dl; serum ferritin, 3.28 ng/dl; serum folate, 3.52 ng/dl; and serum B_{12} level, 675 pg/dl. The blood glucose levels ranged from 573 to 164 mg/dl.

With the diagnosis of iron-deficiency anemia due to poor iron intake, she was treated with 1500 mg of elemental iron given intravenously as iron dextran. The reticulocyte response to iron-dextran therapy was brisk, the values rising rapidly to 12.4 percent within two weeks of therapy; however, the increase in hematocrit value was modest, rising from 27 percent to 32.5 percent in six weeks, and then gradually dropping to 25 percent in six months.^a

Present Admission—She markedly was emaciated, weighed 81 pounds, and showed diffuse muscle wasting. The skin was pale and alopecia was present. Fine rales were heard over the right lung field. The hematologic laboratory data were as follows: hemoglobin, 7 Gm/dl; hematocrit, 24.8%; RBC, 3.6 x 106/cmm; MCV, 75 u³; and WBC, 12,500 with 80% polymorphonuclears. The platelet count was 458,000/cmm. Serum iron and iron binding capacity were 1 mcg/dl and 369 mcg/dl respectively. Serum transferrin was 215 mg/dl (normal range, 2-134). Serum erythropoietin level was 25 mu/ml (normal range 15-59 mu/ml). The urinalysis was not remarkable. The guaiac stool test for occult blood was negative.

Marrow and Liver Morphology—Smears of aspirated sternal marrow showed moderate hypercellularity, brisk normoblastic erythropoiesis, active myelopoiesis with normal morphology of various elements, and adequate thrombocytopoiesis. Liver biopsy showed well-preserved hepatic lobular architecture and mild steatosis. The bone marrow and liver were stained for iron employing the Berlin blue reaction; comparisons were made with positive and negative controls. Stainable iron was absent in the marrow smears. In the liver, iron was seen as fine and coarse blue granules within the Kupffer cells. Fine dusty blue granularity was seen in hepatocytes. The stainable iron in the liver was scored as 1+ according to a previously-described semiquantitative system of tissue-iron scoring on a scale of 0-4+.1

DISCUSSION

Following intravenous injection, radiolabeled iron dextran is cleared from the plasma in about ten days. ⁵⁻⁷ The clearance is dose-dependent: after a dose of over 1,000 mg of iron dextran, it is a linear function, reflecting a constant maximum tissue uptake; however, with doses of less than 500 mg of iron dextran, the manner of clearance is exponential. ⁷ The liver, spleen, and the bone marrow are the principal sites of clearance, the hepatic uptake being the largest with a peak at seven to ten days. ⁷

There is a scarcity of information about the ultimate fate of the iron so removed by the liver. In studies by Grimes and Hut's and Wood et al., 6 lasting for six and four weeks respectively, more radioactivity was demonstrated in the liver than in the other organs. Shoden and Sturgeon investigated the hepatic uptake of intravenously-injected iron dextran in the rabbit by biochemical and histochemical methods and reported the total liver iron to be 52 percent of the total dose of iron dextran administered. Also, they observed a shift of iron from the spleen and bone marrow to the liver during the course of the next three to six months. 9

Ultrastructural studies on the rat liver following iron overload have demonstrated lysosomes which contain ferritin and hemosiderin. In: I From the study of these lysosomes with an energy-dispersive x-ray analysis device, it was inferred that the crystalline organization of iron within the hepatocyte may persist for the lifetime of the cell. I2

In our patient, stainable iron was present in both the Kupffer cells and the hepatic parenchymal cells while none was observed in the bone marrow six-and-a-half months after intravenous administration of 1500 mg of elemental iron as iron dextran. From the limited improvement in the hemoglobin value following iron-dextran therapy, and the absence of stainable iron in the bone marrow, two conclusions may be drawn.

First, that the bulk of iron dextran was removed by the liver, and probably by the spleen. And, secondly, that the iron cleared by the liver from the plasma readily was not available to bone marrow for hematopoiesis.

Both of these inferences are consistent with the known characteristics of the utilization of iron dextran in both the animal model and man ⁵⁻⁹ and also are in agreement with the finding of massive hepatosplenic siderosis in association with marrow-iron depletion in hemodialysis patients given intravenous iron dextran. ^{1,4}

It is possible that transferrin may recognize and transport intravenously-injected iron-dextran complex in the same fashion as it does the iron in normal peripheral plasma. If this indeed is true, then the role of transferrin in the internal distributions of the human body may provide an explanation for the morphologic observations made in this patient, as well as for those in patients with dialysis siderosis. Fletcher and Huehns in 1967 put forth their hypothesis of functional heterogeneity of transferrin-bound iron and two separate binding sites of transferrin for portal plasma iron and peripheral plasma iron. ^{13,14} The portal plasma iron, they hypothesized, is transported by A-site and preferentially is removed by the erythroid cells in the bone marrow. The B-site, on the other hand, carries peripheral plasma iron to the

"Normal values for laboratory parameters used in this manuscript are as follows: Iron, 42-135ug/dl; IBC, 280-400ug/dl; Ferritin, 17-281ng/ml (males) and 4.0-201ng/ml (females); Folate 2.4-17.5ng/ml; and B₁₂ 207-1098pg/dl.

liver and proximal gut where such iron is recognized and avidly taken up. Several subsequent studies have confirmed the basic tenets of Fletcher-Huehns hypothesis in both the rabbit and the rat.¹⁵⁻¹⁸

In the patient described, the presence of stainable iron in the liver, and its absence in the bone marrow, is consistent with role of B-site iron as stipulated in the Fletcher-Huehns hypothesis. Thus, it would appear that intravenously-administered iron dextran predominantly is taken up by the B-site of transferrin, and preferentially delivered to the liver and the spleen, and to a lesser degree the bone marrow. Seemingly, iron delivered to the bone marrow eventually is utilized in erythropoiesis. The bulk of the iron delivered to the liver appears to be sequestered from the normal metabolic pathways of iron and this results in the observed dissociations between the hepatic and the bone marrow iron stores.

Regardless of the mechanism of hepatic iron loading, the studies of tissue iron in this patient as well as those in dialysis patients, 1,4 point to the risk of iatrogenic siderosis from intravenous iron-dextran therapy (when the normal intestinal mechanisms for regulation of iron absorption are bypassed).

SUMMARY

Following six-and-a-half months of iron-dextran therapy, depletion of bone marrow iron in the presence of hepatic iron stores was observed in a 34-year-old woman. The patient had brittle diabetes mellitus, anorexia nervosa, amenorrhea, and anemia. Iron-dextran therapy resulted in only a modest temporary improvement in the hematologic status of the patient.

Paradoxical association of massive hepatosplenic siderosis and depletion of marrow-iron stores have been observed in hemodialysis patients following intravenous iron-dextran therapy, and also in some patients with cirrhosis of the liver. The present case demonstrates that this dissociation between the hepatosplenic and the marrow-iron stores also may occur in the absence of chronic diseases of the kidney or liver. Further, it illustrates the risk of long-term hepatic iron overload entailed in intravenous iron-dextran therapy.

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Haemonnius innocucae, and a propagation streptococci.
Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Occion. Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Moming sing to the pelialosudini sploy of animative and Mamings: In Penicillin-Sensitive Patients, Cephalosporin antibiotics should be administered Cautiously There is clinical and laboratory evolvec of Paratial Ceross-allergemicity of the Penicillins and the Cephalosporins, and there are instances in Which Patients have had neactions, including anaphylaxis, to both dorig classes.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefactor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines or corticosteroids.

or corticosteroids.

Profologed use of cefacior may result in the overgrowth of nonsucceptable organisms. Careful observation of the patient is essential. It sugarineticano occurs during therapy, appropriate assessinal is sugarineticano occurs during therapy, appropriate control of the cont

positive Coombs test may be due to the drug Ceclor should be administered with caution in the presence of

Octor should be administered with caution in the presence of markedly impaired and function. Under such as condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended. As a result of administration of Ceclor, a false-positive reaction for glucose in the uniter may occur. This has been observed with Beredict's and Friding's solutions and also with Clinitest' false that only with Test Tage' (Bucces Enzymatic Test Stip,

tablets but not with lesi-laper -functions curpment in a view purpose. USSP, Lilly, Lilly,

Usage in Intancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2.5 percent of
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(1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare

instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor. Hypersensitivity reactions have been reported in about 1.5 Some ampicillin-resistant strains of <u>Haemophilus</u> influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.1-6

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.7



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percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions than I in 200 patients Cases of serum-sickness-like reactions einphream sufficience or the above skin manifestations accompanied by arthritis/arthridipia and, frequently, fever have been reported these reactions are pagnetify the or hypersensitivity and have lossed by coursed during or following a second course of therapy with Cector ("celoration" such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after costation of therapy hos services singulate have lever days after costation of therapy hos services singulate have been reported. Arthritis ammers and controlsteroids appear to

been reported. Antihistamines and corricosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin altergy.

Other effects considered related to therapy included eosinophili (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in

100 patients).

100 patients).

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Figural — Signit derivations in SGOT, SGPT, or alkaline phosphatase veloses (1 in 40).

Firenalization — Signit Transisteri fluctuations in leukocyte count, Americans

predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in 8UN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). (100281R)

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either S. pneumoniae or H. influenzae. Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-

Note Cector is common to the cephalogoria and should be given cautiously to purely the cephalogoria and should be given cautiously to purely allergic patients.

Penicillin is the usual drug of choice in the treatment and properties of the cephalogoria. of rheumatic fever. See prescribing information.

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Cholesterol Pericarditis: The Third Autopsied Case in the United States with a Study of Its Histogenesis*

ISTVÁN A. GÁSPÁR, M.D., Englewood

This diagnosis was difficult to establish clinically. Blood pool scan showed pericardial effusion. The patient died of congestive heart failure. Cholesterol pericarditis was found at autopsy. A study of the pericardium revealed atherosclerotic type degeneration indicating the histogenesis of this unusual pericardial disease.

holesterol pericarditis is a rare form of pericardial disease that was unknown prior to 1919, when J.S. Alexander¹ published an article entitled, "A Pericardial Effusion of Gold Paint Appearance Due to the Presence of Cholesterin." Since then, 60 to 70 additional cases have been published in the world's literature.

Alexander's patient, a 32-year-old male, had symptoms suggestive of hypothyroidism. There was improvement for five months during treatment with thyroid extract and diuretics but a failing heart developed and the pericardium had to be drained. Over three pints of an opaque, dark brown fluid of "gold paint" appearance, due to abundant cholesterol crystals, was withdrawn from the pericardial cavity. No histologic study and no followup were available. The patient recovered.

There is a paucity of autopsy material on this disease; it seems worthwhile to report this patient and autopsy study, the third autopsied case in the United States.

CASE REPORT

An extremely weak and ill 78-year-old woman was admitted to Englewood Hospital on July 29, 1974. No historical data were available. Physical examination revealed enlargement of the cardiac borders to left and right. The neck veins were distended and the heart sounds were distant. Peripheral pulses were poor. There was slow atrial fibrillation and paradoxical pulse. The lungs were clear; no ab-

dominal masses were present. There was ankle edema. Chest x-ray revealed massive cardiac enlargement (Figure 1). Electrocardiogram showed a regular sinus rhythm with low voltage. Protein-bound iodine was 3.2 mcg (normal 4 to 8); T4 was 5.8 mcg/dl (normal 4.5 to 11.5); T3 was 47% (normal 34 to 45). Blood count showed WBC 9,600 with 87% polys, 11% lymphs, 1% bands, 1% monos; RBC 4,990,000, Hgb 11.6 gm/dl, Hct 36.6%; serum cholesterol was 160 mg/dl.

The subnormal temperature, slow pulse, and marked sleepiness of the patient favored hypothyroidism as the underlying etiology of a pericardial effusion. On August 8, a technetium blood flow study confirmed the pericardial effusion (Figure 2). A consulting cardiologist suggested open pericardial drainage but congestive heart failure developed and despite digitalization she expired on August 10, 1974.

GROSS PATHOLOGY

The most striking pathology was located in the chest cavity. The pericardium was enlarged enormously with a transverse diameter of 20 cm and a sagittal diameter of 17 cm. It contained 1600 cc of thin, dark reddish-amber colored fluid of "gold paint" appearance. Cholesterol crystals were abundant and there were some red blood cells and histocytes. The cholesterol content of the effusion was 120

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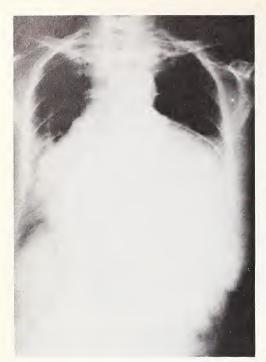


Figure 1—X-ray of the chest on September 30, 1974, showing markedly enlarged heart shadow.

mg/dl. Bacteriological cultures were negative.

The heart was not enlarged; its weight was 300 gms. The pulmonary artery and the right ventricle appeared compressed and were empty. Cardiac tamponade was indicated. The left and right auricles were dilated. Shaggy, yellow, fibrinous exudate covered many parts of the epicardial surface. The remaining free, smooth, serous epicardial surface showed many hard, thread-like or larger, pale yellow ridges and plaques (Figure 3). The parietal pericardium was identical, except that it showed no fibrinous exudate. The right ventricle was hypertrophied moderately and measured 0.5 to 0.8 mm in thickness. The left ventricle was not hypertrophied. The brownish-tan colored myocardium was free of fibrosis. The coronary arteries were calcified severely, but the lumina were patent. The right pleural cavity totally was obliterated, while the left pleural cavity contained 500 cc of transudate. There were multiple hemorrhagic infarcts in the lungs. The liver was firm, 1060 gms with nutmeg architecture on section. The entire abdominal aorta was atherosclerotic and contained a large mural thrombus. The thyroid gland weighed 24 gms and included several colloid nodules.

MICROSCOPIC FINDINGS

The serous layer of the epicardium showed areas of plaque-like fibrous thickenings with hyalinized portions and faint, pink-staining mucin reaction in some areas. Masses of lipophages with cholesterol clefts were found mainly in the deeper layers of the plaques (Figure 4). In the larger lipophage masses, central degeneration was frequent with production of numerous cholesterol clefts (Figure 5). The



Figure 2—Technetium blood flow study demonstrating considerable increase of the heart shadow, consistent with pericardial effusion. (Small arrows indicate heart borders; large arrows indicate the parietal pericardium.)



Figure 3—Posterior aspect of the heart. Fibrinous exudate covers a large part of the epicardial surface. The smooth, free epicardial surface shows multiple yellow ridges due to lipophage and cholesterol deposits in the epicardial membrane. (Ridges marked by arrows.)

fibrinous exudate also contained masses of lipophages and cholesterol clefts (Figure 6). The pale yellow ridges, noted grossly in the epicardium and pericardium, corresponded to the masses of lipophages seen microscopically. Some lymphocytic and plasma cell reaction also was noted. The thyroid gland showed atrophic changes in the nonnodular areas and severe atrophic changes in some of the colloid nodules.

DISCUSSION

Cholestrol pericarditis is one of the unusual forms of pericardial disease that is not caused by infection. Only two cases of tuberculous pericarditis associated with cholesterol pericarditis were reported.²⁻³ The amount of the effusion varied, but generally it was reported as large. Howard reported the largest amount, four liters, in the first autopsied case in the United States; this patient also had Riedel's struma.⁴ One additional case with autopsy studies subsequently was reported in this country.⁵ The pericardial ef-



Figure 4—A plaque of the epicardium with thickened, fibrosed serous layer, in which a large mass of lipophages can be seen above the fibrous layer of the epicardial membrane. (One arrow indicates the serous layer, four arrows indicate a mass of lipophages, and five arrows indicate the fibrous layer, a dark zone beneath the lipophage mass.)



Figure 5—A lipophage mass of the parietal pericardium showing a large central area of disintegration with masses of cholesterol clefts, showing the cholesterol crystals (clefts in the section) did not originate from red blood cells.

fusion of our patient also was large, 1600 cc; "gold paint" appearance and fibrinous exudate were notable (Figure 3). In a number of reported cases the effusion was vellow, occasionally milky, fluid with cholesterol crystals only in some of the effusions. However, the cholesterol level exceeded the abnormal 70mg/dl in almost every patient. The normal pericardial fluid contains only an average of 20 to 40 mg/dl of cholesterol. In the present case the pericardial fluid cholesterol was 120mg/dl. The duration of the effusion, as reported in the literature, was from several months to 5 years, and in one case, quoted by Marks and Roof,6 it was 16 years. In the present case it was also of several months duration. The etiology and pathogenesis of cholesterol pericarditis still is obscure. However, myxedema and hypothyroidism were found frequently. How does one explain the origin and formation of cholesterol pericarditis? Kern et al. stated that massive pericardial effusion appears to be a function of virtual athyreosis.7 Marks and Roof indicated that serous cavity effusions can be produced by experimental induction of hypothyroidism.6 In some of the cases the pericardial membrane showed thickening, fibrosis, hyalinization, and cellular infiltrate, mostly by lymphocytes. Cholesterol deposits were demonstrable in 20 to 25 percent of the patients. Fibrosis, irregular thickening, degenerative changes, and lipophage masses were evident in the present



Figure 6—Photomicrograph of the entire thickness of the epicardium with the fibrinous exudate covering the ulcerated serous surface. The exudate extends into the fibrous layer in some places. Lipophage and cholesterol cleft masses are at different levels and some almost are at the surface. (Single arrow points out the fibrinous exudate covering the ulcerated serous layer, two arrows point out the darkly stained fibrous layer just above a zone of fat tissues, and three arrows point to one of the lipophage masses and cholesterol clefts.)

case. The absorption of the pericardial fluid either was prevented or delayed by these changes. The cholesterol crystals (cholesterol clefts in histologic sections), were produced mainly in disintegrating lipophages or lipophage masses (Figure 5) which seemed to indicate that they were not the result of repeated hemorrhages as Haining and Haining postulated.* Low-grade lymphocytic reaction occurred and through small ulcerations of the epicardium the cholesterol crystals were spilled into the pericardial cavity, fibrinous exudate was produced, and minute hemorrhages occurred.

It is difficult to diagnose pericarditis with effusion on clinical grounds alone. In the present case the diagnosis of pericardial effusion was established on the basis of a blood pool scan utilizing technetium (Figure 2). Treatment of cholesterol pericarditis with desiccated thyroid was reported to have caused resorption of the effusion and simultaneous diuresis in many of the cases. However, this was possible only in early cases. Later on, probably because the pericardial membranes were thickened and degenerated, resorption was not possible with thyroid hormone therapy alone. Single or multiple pericardiocentesis, or pericardial window,

or, rarely, pericardiectomy was needed. It is doubtful that thyroid hormone therapy alone could have helped our patient. On the other hand, a pericardiocentesis or pericardial window might have helped. Even if these had been done and the heart tamponade prevented, the patient's severe atherosclerosis would have made a long-term salvage of this patient highly improbable.

SUMMARY

A case of serofibrinous cholesterol pericarditis, the third case with autopsy study from the United States, is reported. The study showed that the gross and histologic changes of the pericardial membranes were similar, if not identical, with the changes found in atherosclerosis. The likely etiology seemed to be hypothyroidism. The histogenesis was atherosclerotic type degeneration of the pericardial membranes which prevented or delayed the absorption of the pericardial fluid.

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antidoucs concurrently, not more train one application a day is recommended. When using nemycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized many substances; including nemorpion. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and liching, it may be manifest simply as a failure to hea. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawine medication. Neomyon-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section). Complete literature available on request from Professional Services Dept. PML.



MEOSPORINO OINTMENT

ANNUAL AWARDS DINNER of the ACADEMY OF MEDICINE OF NEW JERSEY

Wednesday, May 26, 1982 6:00 P.M.

at

THE CHANTICLER
Millburn, New Jersey

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EDWARD J. ILL AWARD ARTHUR KROSNICK, M.D.

CITIZENS AWARD WILLIAM R. WALSH, JR.

GUEST SPEAKER
LARRY WACHTEL

First Vice-President Bache Halsey Stuart Shields, Inc.

For further information, contact Executive Offices of the Academy: Two Princess Road, Lawrenceville, NJ 08648 (609) 896-1717

NEW JERSEY SOCIETY OF PATHOLOGISTS

ANNUAL SPRING MEETING

SATURDAY, MAY 22, 1982

UMD-Rutgers Medical School, Piscataway, New Jersey 8:30 A.M.-2:00 P.M.

NC

"FORENSIC PATHOLOGY/LEGAL MEDICINE"

Program Chairman: Robert Goode, M.D.

The program will contain presentations by nationally prominent and outstanding pathologists on the practical aspects of Forensic Pathology as they affect hospital pathologists. A brief overview of the New Jersey Medical Examiners Act with updated clarifications of the interactions between the hospital pathologist and County and State Medical Examiner offices will also be presented. The main part of the program presentation will include "Hospital Deaths Related to Therapeutic and Diagnostic Misadventure," "Forensic Neuropathology," and "Forensic Aspects of Surgical Pathology."

For Further Information Contact:

Cathy Gillmer

New Jersey Society of Pathologists

Two Princess Road

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Newly Released Insulin Preparations

This information is compiled by the International Pharmaceutic Drug Information Center (IDIC), affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences of Long Island University.*

Please comment on the significance of the purity of the newly released insulin preparations.

Commercially available insulins differ widely with regard to duration of action, source of origin, purity, and cost (the Table highlights these differences). The introduction of several new highly "purified" insulin preparations (Lilly, Nordisk, Novo, Squibb), defined by the FDA as having a proinsulin content not exceeding 10 ppm,¹ may cause some confusion concerning the clinical significance of purity. Insulin's purity is based solely on proinsulin concentration (the biologic precursor of insulin) and may be categorized as <10 ppm, <3,000 ppm, and 10,000 to 50,000 ppm. However, there are many other impurities in insulins beside proinsulin, such as somotostatin, glucagon, arginine insulins, pancreatic polypeptide, esterified, and monodesamido insulins that are not accounted for in the rating.²

The rationale for decreasing the proinsulin concentration is to reduce antigenicity which has been implicated in insulin resistance, allergic reactions, and lipodystrophy. The clinical significance of antigenic differences of commercial insulins has not been established clearly. The new, highly "purified" insulins are less antigenic than the older products, but

lessened antibody formation does not appear to decrease either the incidence or severity of insulin resistance nor does it affect the clinical course of insulin allergy.^{2,4,5} In addition, insulin as well as the contaminant products have been shown to be antigenic.⁴

One advantage of the highly "purified" insulins is their possible benefit to patients with lipodystrophy at injection sites since these complications have not been reported yet in conjunction with these newer products.²

In conclusion, the increased cost of the new highly purified insulins may not be justified for patients who are adequately controlled with conventional insulins.

^{*}The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians. The Director of the Center is Jack M. Rosenberg, Pharm. D., Ph.D.; the Consultant is Walter A. Modell, M.D. This month's column was prepared by J.M. Rosenberg, Pharm. D., Ph.D., H.L. Kirschenbaum, Pharm.D., Ghazala Saleem, M. Pharm, M.S., Jayne Ritz, R.Ph., and Frances P. Martino, R.Ph. Correspondence may be addressed to the International Pharmaceutic Drug Information Center, 81 DeKalb Avenue, Brooklyn, NY 11201.

Table Comparison of Some Insulin Products

Product	Source	Insulin (PPM)	Onset of Action (hours)*	Duration of Action (hours)	Cost (10 ml vial)**	Strengths
Rapid Acting Actrapid-Novo Iletin II-Lilly Velsulin-Nordisk Mixtard-Nordisk	Pork Pork Pork Pork	≤1 <10 ≤1 ≤1	1/2 1/2-1 1/2 1/2	8 5-7 8 24	11.40 9.60 8.40 8.40	U-1000 U-100-U-500 U-100 U-1000
(30% reg, 70% NPH Purified insulin-Squibb Iletin II-Lilly Iletin I-Lilly Insulin-Squibb	Pork Beef Beef-Pork Beef-Pork	<10 <10 <3,000 No	1/2 1/2-1 1/2-1 1/2-1	6 5-7 5-7 6	9.24 5.99 5.03 4.32	U-100 U-100 U-40, U-100 U-40, U-100
Zinc Suspension Semitard (semilente)-Novo Iletin 1 (semilente)-Lilly Insulin (semilente)-Squibb	Pork Beef-Pork Beef-Pork	≤1 <3,000 10,000-50,000	1-1/2 1-3 1/2-1	16 12-16 12-16	11.40 5.38 4.97	U-100 U-40, U-100 U-40, U-100
Intermediate-Acting Globin Insulin-Squibb NPH	Beef-Pork	10,000-50,000	2	24	6.07	U-40, U-100
Insulatard-Nordisk Insulin-Squibb Purified Insulin-Squibb Zinc Suspension	Pork Beef-Pork Beef	<1 10,000-50,000 <10	1-1/2 1-1-1/2 1-1-1/2	24 24 24	8.40 4.97 7.34	U-100 U-40, U-100 U-100
Monotard (lente)-Novo Lentard (lente)-Novo Iletin II (lente)-Lilly Iletin II (lente)-Lilly	Pork Beef-Pork Pork Beef	≤1 ≤1 <10 <10	1-1/2 2-1/2 1-3 1-3	22 24 24–28 24–28	11.40 11.40 9.60 5.99	U-100 U-100 U-100 U-100
lletin I (lente)-Lilly Insulin (lente)-Squibb Purified Insulin (lente)-Squibb	Beef-Pork Beef Beef	<3,000 10,000-50,000 <10	1-3 1-3 1-3	24-28 24-28 24-28	5.38 4.97 7.34	U-40, U-100 U-40, U-100 U-100
Long Acting Ultratard (ultralente)-Novo Iletin II (PZI)-Lilly Iletin II (PZI)-Lilly Iletin I (ultralente)-Lilly Insulin (ultralente)-Squibb Insulin (PZI)-Squibb	Beef Pork Beef Beef-Pork Beef Beef-Pork	≤1 <10 <10 <3,000 10,000-50,000 10,000-50,000	4- 4-6 4-6 4-6 4-8 4-8	36 + 36 + 36 + 36 + 36 + 36 +	11.40 9.60 5.99 5.48 4.97 4.97	U-100 U-100 U-100 U-40, U-100 U-100 U-100

^{*}Onset and duration can vary widely with different doses and different patients.

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Answers Pharmacists. Indianapolis, IN, 1980.

- Kumar^oD, Rosenquist RJ, Parameswaran V: Insulin allergy: Reaginic antibodies to insulin and proinsulin. J Clin Endo Metab 49:252-254, 1979.
- 5. Manning NT, Drury MI: The immunogenic properties of a highly purified insulin preparation. *Irish J Med Sci* 148:135-139.

^{**} Cost to the pharmacist for a 10 ml vial.

PEDIATRIC BRIEFS

Selected Abstracts with Comments*

King SD, et al.: Safety and immunogenicity of a new *Hemophilus Influenzae* type b (Hib) vaccine in infants under one year of age. *Lancet* 2:705, 1981.

Capsular polysaccharide (polyribose phosphate, PRP) vaccines have not been immunogenic in children under two years. An adjuvant with PRP vaccine was studied in infants and 70 percent responded.

Comment: This is a very preliminary study of a possible new approach to making an Hib vaccine. Hib causes major mortality and morbidity and an immunogenic protective vaccine that could be given in the first months of life would be useful.

Haque M, et al.: Parental perceptions of enuresis. Am J Dis Child 135:809, 1981.

In a collaborative study of nine medical centers, the parents of over 1,300 randomly selected children age 4 and older, 25 percent of whom were bed-wetters (enuresis twice/week or more), were surveyed about bed-wetting. The responses of parents of enuretic and nonenuretic children were compared. On the average, the families of bed-wetters had more children (2.46) than the families of nonbed-wetters (2.29 children). Forty percent of the siblings and 32 percent of parents of bed-wetters also had been enuretic as opposed to 20 percent of the siblings and 32 percent of parents of the nonbed-wetters. Both groups of parents saw enuresis as a problem, one-third of them attributing it to an emotional cause, but parents with less education worried more about the problem, used more punishment in an attempt to control bed-wetting, and sought medical help more frequently than did the more well-educated parents. Both groups of parents expected night-time dryness close to the age of actual dryness reported in most studies (80 percent of 940 children in Brazelton's study were trained by age 3). Parents of enuretic children expected dryness by 3.13 years and parents of nonenuretic children expected dryness at 2.61 years. To avoid bed-wetting behavior, 83 percent of the parents woke the child, 70 percent fluid restricted the child, and 35 percent of parents punished their children. Only 45 percent sought medical attention, and less than one-seventh of the parents

Comment: It is interesting to note that fewer than half the parents of enuretic children sought medica! advice and that 25 percent of randomly selected children over age four were bed-wetters. Perhaps the problem is more widespread than we have been led to believe. (S. Margolin, M.D.)

King J, et al.: The effects of hospitalization on children's behavior: A review of the literature. Children's Health Care 10:20, 1981.

Both theoretical and empirical studies spanning four decades are reviewed. The literature documenting the negative effects of hospitalization supports the following general conclusions: (1) there are negative effects; (2) these effects are

greatest for children between seven months and about five years of age; (3) illness itself appears to be disturbing; (4) hospitalization for longer than one week in children under five appears to have very long-term effects; and (5) many children are not disturbed by hospitalization.

Literature documenting ameliorative efforts carried out by hospital staff support these conclusions: (6) the effects of hospitalization can be attenuated; (7) it is more difficult to attenuate negative effects in children under five years; and (8) indirect efforts (reducing the stress of mothers) can be successful. A smaller group of studies focusing on family visitors supports two further conclusions: the presence of the mother can have a positive effect, and the effect of mothersubstitutes can have a similar positive effect.

Comment: In summary, adequate models for responsible hospital pediatric practice are available in the literature and the lines are drawn for future research. The problem remains how to get these models into widespread and consistent use, not as "special programs," but as integral parts of services. (D. Price, Ph.D.)

Sinclair JC, et al.: Evaluation of neonatal intensive care programs. N Engl J Med 304:489, 1981.

The authors point out that the efficacy of various modalities of treatment in neonatal intensive care units has been validated only through randomized and well-controlled studies. They raise questions regarding the effectiveness of neonatal centers on the morbidity and mortality of the entire region served rather than within the units themselves, and whether they operate efficiently. (Are we getting the biggest possible bang for the buck?) Further, evidence is lacking to prove that the use of intensive care units adequately reflects the desire, need, or demand for these services. (Does the supply of these centers determine demand, rather than the reverse?)

Comment: Although my personal bias is that NICUs are of great value, their enormous expense warrants a more general and critical evaluation than they yet have had. While it is impossible to place a dollar value on a human life in a society with finite resources and more demands for financing of worthwhile endeavors than there are dollars for support, a hard-nosed assessment is justified.

New Jersey has the opportunity to make such an assessment over the next few years as the designated "demonstration projects" are scrutinized. Let us hope that the very questions raised in this article—efficacy, effectiveness,

^{*}Abstracts are from the Department of Pediatrics Newsletter, UMD-New Jersey Medical School, Newark—Vol. 3, No. 9 (November), 1981. Selections are made by Richard H. Rapkin, M.D., Professor of Pediatrics and Medical Director of Children's Hospital, Newark, who is Editor; and Coeditors, Franklin C. Behrle, M.D., Professor and Chairman of Pediatrics and Shyan C. Sun, M.D., Associate Professor of Pediatrics and Director of Neonatology, Children's Hospital, Newark. Comments are prepared by them and their associates.

efficiency, and availability—are an integral part of the evaluation process. (F. Behrle, M.D.)

Editorial: Child abuse: The swing of the pendulum. Br Med J 238:170, 1981.

The threshold of suspicion may have been lowered too far. In some places, all injuries of children are assumed to be caused by abuse until proved otherwise. Defensiveness by physicians and imperious demands for information by social agencies may damage delicate parent-physician relationships and put children at a different, but not insignificant, risk. Though missing a case of child abuse where the signs are clear is reprehensible, careful physicians who make good faith errors of judgment should not be condemned with the benefit of hindsight.

Comment: Judging whether there are sufficient grounds for suspicion of abuse, and hence for reporting abuse, may be one of the most difficult and agonizing decisions a physician has to make. This is particularly true if that physician is a primary care provider who has worked hard to establish a relationship with a bruised and fragile family. If such a physician has exercised prudent and reasonable judgment on the basis of the facts available, he/she should be defended against retrospective recriminations.

If the pendulum has swung too far in child abuse, it is part of a larger phenomenon. "Defensive medicine" is wrong because the undue concern to avoid error leads to costs not justified by benefits. The delicate balance between the claims of diagnostic certainty and avoidance of costs (monetary or otherwise) is disturbed easily by fear. Physicians tempted to "take no risks" and report suspected abuse on less than adequate criteria should remind themselves that all clinical judgments involve risk. A good decision requires awareness of what is risked when a report is made: shame, social stigmatization, potential disruption of a therapeutic relationship, and possible future avoidance of medical services for the child. Keeping the costs in clear view won't make the decision an easier one, but it will make it a better one. (D. Price, M.D.)

Gonzalez J, et al.: Metabolic alkalosis secondary to baking soda treatment of a diaper rash. *Pediatr* 67:6, 1981.

A four-month-old, previously well infant presented with hypochloremic metabolic alkalosis. He had been treated for a week with liberal applications of sodium bicarbonate (Arm & Hammer baking soda) for severe diaper rash. Other more common causes of metabolic alkalosis in infancy—pyloric stenosis, ingestion of chloride-deficient neo-mull-soy, cystic fibrosis—were excluded. The acid-base disturbance resolved completely following discontinuation of bicarbonate applications. Transcutaneous absorption of alkali across damaged skin apparently can exceed the capacity for excretion in infants with immature renal function.

Comment: Another harmful side effect of a common home remedy! (S. Mautone, M.D.)

Southall DB, et al.: Frequency and outcome of disorders of cardiac rhythm and conduction in a population of newborn infants. *Pediatr* 68:58, 1981.

During a four-year period (1974 to 1978), 3,383 standard ECGs were performed at random on a newborn population (well baby and special care nursery) in one section of England. Of this group, 33 (about 1 percent) had cardiac arrhythmias, of whom none were preterm but 2 were small for gestational age; additional 24-hour ECG recordings were

performed on them. Premature atrial and ventricular beats were the most common arrhythmias, but other disorders that occurred were atrial flutter, paroxysmal supraventricular tachycardia, multifocal atrial tachycardia, preexcitation (Wolff-Parkinson-White) syndrome, complete right bundle branch block, and coronary sinus rhythm. Four newborns with tachyarrhythmia required treatment because of potential heart failure (three with digoxin and one with propranolol). The majority of these cardiac arrhythmias disappeared by three months of age, and almost all by one year. Conduction disturbance, such as complete bundle branch block and coronary sinus rhythm, persisted but caused no problem.

Comment: The important message is that the prognosis for the majority of neonatal cardiac arrhythmias is excellent and requires no treatment. However, these patients should be followed carefully in order to sift out the few that may develop severe brady or tachyarrhythmia and ensuing heart failure. (M. Prystowsky, M.D.)

Cohen AR, et al.: Reassessment of the microcytic anemia of lead poisoning. *Pediatr* 67:6, 1981.

Ninety-five children with class III or IV lead poisoning by CDC criteria were evaluated hematologically. Iron deficiency was found to coexist in 32 percent of patients, of which more than half evidenced microcytosis. An additional 7 percent had either alpha- or beta-thalassemia trait, and all of these children were microcytic. Of the remaining 58 children, 13 percent with class III and 46 percent with class IV lead poisoning evidenced microcytosis. Only one patient (2 percent) was found to have both microcytosis and anemia. The association of lead poisoning with microcytic anemia, after exclusion of other hematologic abnormalities, occurs much less frequently than previously reported.

Comment: A normal CBC should not preclude screening for increased lead burden in the appropriate pediatric population. Perhaps more importantly, the data suggest that those children with diagnosed lead poisoning who are found to have microcytosis with or without anemia should be evaluated for coexistent iron deficiency and treated appropriately after completion of chelation. (S. Mautone, M.D.)

Hoffman RS: Prenatal psychoanalysis: A new approach to primary prevention in psychiatry. *J Irreproducible Results* 27:5, 1981.

Intensive psycholanalysis was offered to third trimester fetuses during the two weeks prior to their delivery. Longterm followup obtained on 46 percent of the sample (n = 110) at age 30 indicated that the primary criterion for adequate adult adjustment was an annual gross income exceeding \$36,000. Factor analysis of the data revealed that among the therapeutic factors associated with good outcome are: analysis conducted with the fetus horizontal (sonography helped here), thorough working-through of fetal feelings of anticipatory anxiety related to imminent delivery, and utilization of transference wherein the fetus's behavior toward the analyst reflects earlier experience with fellow germ cells in the prezygotic stage. These data suggest that psychoanalysis need not be delayed until neurotic symptoms emerge in adulthood.

Comment: This seems a trifle silly, but then they laughed at Semmelweis. I suggest we keep an open mind and await the results of confirmatory efforts. (D. Price, Ph.D.)

WHAT IS YOUR OPINION?

A Trip to a Subpanel Hearing

FRANK J. MALTA, M.D., Toms River*

One busy afternoon, I received a phone call from the Administrative Office of the Courts requesting that I serve on a subpanel hearing to be held an hour-and-a-half travel time from my office. Since I had submitted my name to serve if requested through the Ocean County Medical Society and my specialty society, I accepted. I was asked whether there was any active malpractice action against me and whether either law firms or defendants were known to me personally. I was not disqualified from serving. I was requested to submit a time that would be agreeable to meet with the other members of the panel.

I received notice that the time was set for 10 A.M. on a Wednesday (not to conflict with office-patient care). I did not give the matter any further thought until ten days prior to the hearing when I received about five pounds of records to review. I familiarized myself with the case and allegations. At all times, I tried to be objective and neutral, attempting to identify the strong and weak points. The night before, I again reviewed the material in order to keep the contents fresh in my mind.

The next morning, I arose about 6:30 A.M., and went to the hospital to see a few of my acute cases before signing out for the day to a covering colleague. Not knowing exactly the location of the courthouse, I decided to allow more than enough time to insure my timely arrival. I arrived at the court house about 9:30 A.M. The judge was kind enough to contact my office the day before to state that a convenient parking space was reserved for me.

The judge's secretary was cordial and brought me to the judge's chambers. I was offered a cup of coffee and a newspaper to help relax before the judge arrived. Promptly at 10 A.M. the judge arrived in his chambers and warmly introduced himself. All the other parties were standing by and everyone was requested to proceed to the courtroom.

The judge, the attorney for the panel, and I sat on one side of a parson's table. The plaintiff's and defendant's attorneys as well as the defendant and witnesses sat on the other side. The panel members were introduced to those present. The judge explained the ground rules. The hearing was to be informal, without any records being made; each side would

be allowed to present its case, and there would be crossexamination by members of the panel.

The plaintiff's attorney presented his case. His expert was allowed to testify. Members of the panel then were allowed to ask questions, either to clarify a point or to ask pointed questions. From time to time, the judge kept everyone on target and to the point, allowing or disallowing objections from either attorney.

The second plaintiff's medical witness arrived and he was allowed to testify.

About noon everyone recessed for lunch and we were advised to return at 2 P.M. The judge cautioned the panel members not to have lunch with any of the participants and in no way to discuss the case with any of the parties involved.

A leisurely lunch was enjoyed and enough time was left over for a stroll outdoors on a nice sunny day with the attorney from the panel.

At 2 P.M., everyone reconvened in the courtroom at assigned places. The defendant-physician was allowed to testify and was cross-examined by the plaintiff's attorney and by the panel members. No witness for the defendant was present. The defendant's position was submitted in a report from his expert.

By 4 P.M. the testimony was completed. The panel adjourned to the judge's chambers. He indicated that it would be too late to make a decision on that day. Additional material was submitted to the panel and defendant's attorney to review. The judge suggested that he could canvass the panel members at a later date to avoid another trip back to the courthouse. I stated that I did not object to returning in two weeks at 2 P.M. since I felt that the discussion should take place with all members of the panel present.

On the way home I mulled over the day's hearing. I listened to some music while planning to complete my hospital rounds that evening as well as returning phone messages. When I arrived home I mentioned to my wife that I would have to return in two weeks. My practice resumed as

^{*}Dr. Malta is a member of the State Board of Medical Examiners.

usual. The judge reminded the panel members not to discuss the case with anyone or to look up any articles pertaining to the case.

Two weeks later, I again prepared myself for the trip. The evening before, I reviewed the case and the testimony to date, trying to see both sides of the issue, and at all times trying to be neutral. I began to crystalize the facts of the case in an effort to come to some conclusion by the time of the hearing. The next day, I made my rounds at the hospital, and by 12:30 P.M. I left for the courthouse. Again, it was a nice sunny, warm day. When I informed my wife that I was going to the panel hearing, she replied, "I thought you went last week." With some hesitation, I said, "That was a medical society meeting." I left, hoping that she would understand the importance of a doctor's responsibilities that oftentimes takes precedence over many things.

At 2 P.M. the panel members met in the judge's chambers for a summation and decision. The judge asked for my assessment of the case and whether I felt that there was a deviation from standard medical practice. The attorney for the panel made his presentation and, finally, the judge made his assessment. Some further discussion continued and eventually a decision was reached.

The judge informed us that we would be sent a statement in several weeks and, if we were in agreement with the content as discussed, that the statement was to be signed and returned to him. The result of the subpanel hearing would be introduced at the trial since the decision was unanimous.

I expressed to the judge that I found the subpanel hearing an educational one. He stated that doctors must be willing to

serve on these panels if they are to continue, and he hoped that doctors eventually will have an impact on medical malpractice cases, through dismissals of cases without merit or settlement of those with merit. He mentioned that prior to the initiation of the subpanel hearings there were many malpractice cases going to trial. But since the subpanel hearings, there already was a reduction in the number of cases going to trial. He volunteered to speak to my county medical society at some future date to help explain the importance of the subpanel program. We all extended our farewells and departed.

I returned to Toms River with the satisfaction that I did my best to arrive at a proper decision with the hope that some day someone also will evaluate my performance with the same professional integrity.

The experience that I gained from the subpanel hearing was a wholesome one. I came away from the subpanel hearing with admiration for the judge, for the role that he played, and for his integrity—the same applies to the attorney member of the panel.

I also pondered the thought that passes through a doctor's mind; that is, the desire to be a good doctor and to serve his patients to the best of his ability. At the same time, the thought that a malpractice action may happen at any time to the best of doctors, saddens me.

I have taken you with me on a trip to a subpanel hearing in order that it might help you on your trip some day and, if you have already made the trip, to express your experience. It is a trip I would recommend to all members of our profession if they are asked to make it.

Report of the Nominating Committee Offices to be Filled by Election 1982 Annual Meeting

Augustus L. Baker, Jr., M.D., Chairman

Office	Term	Nominee and County
President-Elect	1 year	Alexander D. Kovacs, M.D., Union
1st Vice-President	1 year	Frank Y. Watson, M.D., Essex
2nd Vice-President	1 year	Ralph J. Fioretti, M.D., Bergen*
_		
Trustees:	2	Mules C. Monrison, In. M.D. Monris
1st District4th District	3 years 3 years	Myles C. Morrison, Jr., M.D., Morris Harry M. Carnes, M.D., Camden
4th District	3 years	Edwin W. Messey, M.D., Burlington
5th District	3 years	Harry W. Fullerton, Jr., M.D., Salem
Judicial Councilor:	2	Allea F. M. Seel M.D. Merce
3rd District	3 years	Albert F. Moriconi, M.D., Mercer
AMA Delegates:		
	2 years	Alfred A. Alessi, M.D., Bergen
	2 years	Frederick W. Durham, M.D., Camden
	2 years	Karl T. Franzoni, M.D., Mercer
	2 years	John S. Madara, M.D., Salem
	2 years	Henry J. Mineur, M.D., Union
AMA Alternate Delegates:		
	2 years	Palma E. Formica, M.D., Middlesex
	2 years	Charles S. Krueger, M.D., Burlington
	2 years	Carl A. Restivo, Sr., M.D., Hudson
Delegates and Alternate Delegates	to Other State	ac.
New York:	to Other State	vo.
Delegate	1 year	F. Sterling Brown, M.D., Atlantic
Alternate	1 year	John J. Pastore, M.D., Cumberland
Connecticut:	1	Marton I. Crimueld In M.D. Ilaina
Delegate 'Alternate	l year l year	Merton L. Griswold, Jr., M.D., Union Gastone A. Milano, M.D., Atlantic
Atternate	i year	Gastone A. Milano, M.D., Atlantic
Administrative Councils:		
Legislation:		
2nd District	3 years	John J. Crosby, Jr., M.D., Hudson
3rd District	3 years	Leon A. Fraser, M.D., Mercer
Medical Services:		
2nd District	3 years	Joseph W. Fleisher, M.D., Hudson
3rd District	3 years	Vacancy**
N		
Mental Health:	3 venes	George I. Triebenbacher, M.D. Ocean
4th District	3 years 3 years	George L. Triebenbacher, M.D., Ocean Friedrich K. Racke, M.D., Cumberland
our process	5 yours	Tribation It. Racke, M.D., Camberland
Public Health:		
5th District	2 years	Narasimhaloo Venugopal, M.D., Cumberland
2nd District	3 years	Albert Ehrlich, M.D., Hudson
ord District	3 years	Thomas E. Desmond, M.D., Middlesex
Public Relations:		
3rd District	3 years	Jon Marsicano, M.D., Middlesex
6th Member	3 years	Edwin W. Messey, M.D., Burlington
Standing Committees:		
Annual Meeting	3 years	Joseph P. Cillo, M.D., Union
Auxiliary Advisory	3 years	Frank R. Romano, M.D., Union
Finance and Budget	3 years	Palma E. Formica, M.D., Middlesex
Medical Defense and		
Insurance	3 years	Michael J. Doyle, M.D., Monmouth
Medical Education	3 years	William Pomerantz, M.D., Morris
Publication	3 years	Paul J. Hirsch, M.D., Somerset
#TC 1 . 1		
*If elected, a vacancy will exist or	the Board of	Trustees (2nd District—1 year)

^{**}Incumbent does not seek reelection

DOCTORS' NOTEBOOK

Trustees' Minutes January 17, 1982

A regular meeting of the Board of Trustees was held on Sunday, January 17, 1982, at the Executive Offices in Lawrenceville. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

MSNJ 1981 Membership . . . Noted the following membership statistics and observed a steadily improving total during the last three months of 1981:

Active Paid	7,657
Active Exempt	881
Affiliate	89
Associate	1
Emeritus	642
Total	9,270

Comparison of MSNJ 1981 and 1980 Memberships... Noted comparison figures for 1981 and 1980 year-end membership totals show a slight decline in 1981:

	Dec.	31, 1981	Dec. 31, 1980
Active	Paid	7,657	7,706
Active	Exempt	881	914
Affiliat	е	89	84
Associ	ate	1	0
Emerit	us	642	616
Total		9.270	9.320

AMA 1981 Memberships ... Noted a slight improvement in paid and exempt categories for the last three months of 1981; totals were up by ten members.

Comparison of 1981 and 1980 AMA Memberships . . . Noted comparison figures for 1981 and 1980 year-end AMA membership totals show a decrease in the overall membership:

	Dec. 31, 1981	Dec. 31, 1980
Paid	4,465	4,528
Exempt	758	765
	5,223	5,293

Note: Mr. Maressa informed the Board that MSNJ and AMA will begin a marketing program to generate membership; progress reports will be made during the year.

MSNJ 1982 Paid Membership...Noted a total of 853 paid memberships as of December 31, 1981; of that total, 305 members were from Essex County.

Reinstatement of Delinquent Members ... Noted that there is an economic disadvantage for MSNJ because of the delinquent membership problem and the recidivistic delinquent member. A study will be made to determine the number of delinquent members who have been reinstated more than once during the last three years; the Board will be advised of the study's findings.

Note: Of the 437 members terminated on June 1, 1981, for nonpayment of dues, 303 members have been reinstated. A study shows that from January 1, 1981, to June 1, 1981, the 437 members consumed \$41,000 in services and caused a loss of \$5,000 in investment income. After June 1, 1981, \$2,000 in investment income was lost and MSNJ spent \$3,000 in the reinstatement process. After June 1, 1981, the 303 reinstated members used \$23,000 in services. Therefore, MSNJ spent \$74,000 on the delinquent members while reinstatement produced \$69.690 in dues-income.

Legal Matters . . .

- (1) Subordinated Loan Debentures ... Announced the Internal Revenue Service litigation on subordinated loan monies remains in a state of suspension. Mr. Maressa believes the IRS will offer a settlement.
- (2) Chiropractic Assistants at Executive Sessions of SBME ... Noted that the Attorney General ruled chiropractic assistants cannot attend executive sessions of State Board of Medical Examiners unless the meetings deal with the evaluation of chiropractic institutions or examinations.
- (3) SBME vs. Miller . . . Agreed to authorize legal counsel to support Doctor Miller in the litigation.

Note: Administrative Law Judge ruled out any malpractice, gross negligence, or

deviation of accepted medical standards in Doctor Miller's treatment of a patient with restless leg syndrome. Case was dismissed with an imposition of a penalty for two technical violations of the Schedule II drug statute. This is an instance of a technical violation of a statute being under the enforcement jurisdiction of another agency of the state government (Division of Alcohol, Narcotic, and Drug Abuse, State Department of Health), yet enforced by State Board of Medical Examiners.

(4) Pronouncement of Death Proposal ... Expressed objections to proposed amendment by the State Board of Medical Examiners to N.J.A.C. 13:35-6.5—Pronouncement of Death at a Home, Medical, or Nonmedical Facility, emphasizing that it is the responsibility of the physician to pronounce death. The SBME intends to publish the proposal in New Jersey Register. Directed that the Board's opposition and opposition by any county or specialty medical society to the proposed amendment be reiterated to the SBME.

MSNJ Financial Statements ... Received and reviewed financial statements for December, 1981; comparative figures for the period ending December 31, 1981, and December 30, 1980, show significant increase in revenue over expenses in 1981.

New Jersey State Medical Underwriters, Inc.... Discussed the following items at a meeting of the Underwriter on January 15, 1981:

- (1) Filing with the Insurance Commissioner... Noted that no decision has been reached on the rate filing, the discontinuance of the subordinated loan requirement, or the declaration of a dividend for policy year 1977.
- (2) Tort Reform ... Considered the question of overall tort reform. Legal Counsel for MIIENJ was directed by Committee of MIIENJ to draft legislation dealing with six areas of liability in general; legislative package will be pre-

sented to the Council on Legislation for review.

Note: An area of change involves acceleration of the *Rule 4:21* panel system. Doctor Fioretti suggested an education program explaining a physician's responsibility on professional liability panels be offered. Mr. Maressa advised such a program could be offered through the Department of Liability Control.

1981-1982 MSNJ Student Association and Innominate Budget . . . Reviewed 1981-1982 financial summary submitted by MSNJ Student Association showing balance of \$4,289.74. The Board authorized the expenditure of \$1,589 for the 1981-1982 budget of Medical Society of New Jersey Student Association and \$900 for student newspaper, Innominate. The Board directed that future requests for budget funds prepared by MSNJ Student Association be presented to the Committee on Finance and Budget before annual meeting of the Committee in March.

AMA Interim Meeting ... Received as informative a report on the highlights of the deliberations of the AMA House of Delegates and the 1981 Interim Meeting, presented by Doctor D'Elia, Chairman of the AMA Delegation.

- (1) National Specialty Society Representation . . . Voted to add 6 more national specialty societies for a new total of 61 societies with representation in the House. They are: American Association of Clinical Urologists; American College of Nuclear Physicians; American Orthopaedic Association; American Society of Gastrointestinal Endoscopy; American Society of Therapeutic Radiologists; and Association of Life Insurance Medical Directors of America.
- (2) CME Accreditation ... Adopted tighter standards for accrediting continuing medical education. Final approval of a handbook to implement the standards is pending.
- (3) Competition Legislation ... Received two comprehensive reports on the congressional and administrative activities regarding pro-competition and consumer choice programs.

Note: House renewed AMA's strong concern that such legislation be monitored carefully to preserve accessibility of high-quality health care delivery.

(4) Guidelines for Voluntary Peer Review ... Adopted set of principles for voluntary peer review to assure quality and appropriateness of medical care services. Details in *Doctors' Notebook*, March, 1982.

Joint Meeting of the Special Committee on Long-Range Planning and Development and the Standing Committee on Revision of Constitution and Bylaws...

(1) Proposed Amendments to Bylaws . . .

(a) Chapter 11—Meetings, Section 1—Delegates . . . Adopted unanimously by Committee for presentation to 1982 House of Delegates proposed bylaw change to facilitate the seating of alternative delegates without penalizing the regular delegate. Proposed the following amendment:

(e) Alternates

Each delegate may have an alternate. The delegate or the alternate may attend the sessions of the House with full rights as long as he is wearing the proper credential badge. This section also applies to representatives from specialty societies and the Medical Society of New Jersey Student Association pursuant to paragraph (f) below.

(f) Specialty Societies

Every specialty society organized in New Jersey, which is approved by the Board of Trustees of the Medical Society of New Jersey, shall be entitled to one delegate and one alternate if its membership constitutes at least 200 regular Medical Society of New Jersey members. Specialty societies with less than 200 members may, with the recommendation of the Board of Trustees and the approval of the House of Delegates, be seated in conformity with this section. No physician may be considered a member of more than one specialty society for this purpose. The Medical Society of New Jersey Student Association shall be considered a specialty society for the purposes of this section of the bylaws, and its members as regular members of the Medical Society of New Jersey.

(b) Chapter 11—Meetings, Section 2—House of Delegates—Meetings . . . Adopted unanimously by the Committee for presentation to the 1982 House of Delegates the proposed bylaw to develop language that would allow maximum flexibility at the annual meeting. Proposed the following amendment:

(c) Sessions

- The House of Delegates shall meet on the first day of the annual meeting of this Society, but may meet in advance of, or after adjournment of, the annual meeting. The schedule of sessions and all functions shall be determined by the President.
- (c) Chapter IX—Administrative Councils and Committees, Section 3—Admin-

istrative Councils, Standing Committees, and Special Committees . . . Approved unanimously by the Committee for presentation to the 1982 House of Delegates a proposal to make Committee on Medicaid a standing committee. Proposed the following amendment:

The Committee on Medicaid shall consist of members appointed by the Board of Trustees. The number to be appointed shall be determined by the Board of Trustees. The Committee shall be responsible for representing the viewpoint of the members of the Medical Society of New Jersey, and to act as liaison with the Division of Medical Assistance and Health Services, Department of Human Services.

(2) MSNJ Student Association Representation at Meetings ... Approved unanimously the following recommendation:

That the Medical Society of New Jersey authorize two student members from the University of Medicine and Dentistry-New Jersey Medical School and one student from the University of Medicine and Dentistry-Rutgers Medical School to attend the AMA Interim and Annual Meeting and the Medical Society of New Jersey Annual Meeting at Medical Society of New Jersey expense.

Old Business . . .

(1) Foundation of UMDNJ ... Postponed consideration of request for financial aid by Foundation of the University of Medicine and Dentistry to give the Board a chance to review annual report. The request is for MSNJ to increase its support from \$50,000 to \$100,000 over the next five years.

Note: Received communications from New Jersey Orthopaedic Society, Somerset County Medical Society, and New Jersey Association of Medical Specialty Societies opposing the request. The Board directed that a resolution urging individual members of MSNJ to contribute to the Foundation be prepared for consideration at the next meeting.

- (2) Proposed Amendments to Motor Vehicle Regulations . . . Noted MSNJ supports concept of improved vision standards and testing for driving license applicants but requires further information before giving support to the proposed amendments. Notified Department of Motor Vehicles of present position.
- (3) Medical Education Program in South Jersey ... Noted that the Board will review further the proposal for a fouryear school in South Jersey for osteopathic students. MSNJ maintains any

basic science facility in South Jersey should be for allopathic and osteopathic programs.

New Business . . .

(1) Appointment to State Board of Medical Examiners . . . Notified that Frank J. Malta, M.D., was appointed a member of State Board of Medical Examiners.

(2) Inpatient Services for Medically Indigent Children . . . Noted that a copy of Commissioner's December, 1981 memo concerned with medical care for medically indigent children be sent to appropriate specialty societies for comments and positions.

Note: Commissioner Finley's 1981 memo was concerned with the limitations of a program covering neonatal care that will be limited to five hospitals designed as level III regional perinatal care centers.

UMD Notes

Stanley S. Bergen, Jr., M.D. President

(Richard C. Reynolds, M.D., Dean of UMD-Rutgers Medical School, is my guest columnist this month. Dr. Reynold's subject is the upcoming dedication of the clinical campus at Middlesex General Hospital, New Brunswick, the primary teaching hospital for UMD-Rutgers Medical School.)

The \$60 million medical complex to be dedicated on Sunday, May 16, 1982, represents the bricks and mortar of our affiliation agreement with Middlesex General Hospital. This major achievement begins a new chapter in medical education and health care services for central New Jersey and, indeed, for the entire state.

This impressive endeavor consists of the construction of several new buildings and the renovation of others at a site

adjacent to the New Brunswick-based hospital. The nearly completed project includes our Medical Education Building (the new home for our clinical faculty and clinical education programs) and the hospital's new acute services and ambulatory care facilities, new surgical suite, emergency room, and two additional floors for inpatient care in the Robert Wood Johnson Tower.

In addition to the expanded care that these new facilities will support in the areas of emergency, ambulatory, and acute care medicine, the complex also will house 11 tertiary care services, many of which already are in operation. These services, new to our region, include pediatric intensive care, an end-stage renal disease program, a modern cardiodynamics laboratory, open-heart surgery, and a variety of neurological services including the Laurie Neurodevelopmental Institute for Children.

The open-heart surgery program, un-

216th Annual Meeting May 14-17, 1982

Friday, May 14, 1982

3:00 p.m.-Board of Trustees' Meeting

5:00 p.m.-Delegate Registration

Saturday, May 15, 1982

7:30 a.m.—Delegate Registration 9:00 a.m.—House of Delegates

9:00 a.m.-Message Center Opens; Scientific, Informational, and Insurance Exhibits Open; Auxiliary Arts and Hobbies Open; AMA-ERF Boutique Opens

10:00 a.m.-Auxiliary Pre-Convention Board Meeting

11:30 a.m.-Auxiliary Brunch

12:00 noon-Golden Merit Award Ceremony followed by

Reception for Award Recipients 1:00 p.m.—Reference Committee Meetings:

"A," "B," "C," "D," "E, Constitution and Bylaws

6:00 p.m.-JEMPAC Wine and Cheese Reception

Sunday, May 16, 1982

7:00 a.m.-JEMPAC Breakfast

8:00 a.m.-Registration Opens

8:30 a.m.—Scientific Session on Surgery, Oncology, Clinical Pathology

9:00 a.m.-Message Center Opens, Scientific, Informational, and Insurance Exhibits Open; Auxiliary Arts and Hobbies Open; AMA-ERF Boutique Opens; Auxiliary General Session

9:00 a.m.-Scientific Sessions

Allergy; Chest Diseases; Cardiovascular Diseases; Emergency Medicine; Family Practice; Medicine; Orthopaedic Surgery; Pediatrics, Psychiatry

10:00 a.m.-Meeting-NJ Academy of Ophthalmology and Otolaryngology

11:30 a.m.-Meeting-NJ Committee on Trauma

11:30 a.m.-Luncheons: NJ Dermatological Society; NJ Society

of Anesthesiologists; NJ Society of Physical Medicine and Rehabilitation

12:00 noon-Luncheons: NJ Medical Women's Association; Oncology Society of NJ

1:00 p.m.-Luncheons: NJ Chapter, American College of Chest Physicians; President's Auxiliary

1:00 p.m.—Scientific Sessions

Spencer T. Snedecor Trauma Oration; New Jersey Women's Association; Anesthesiology; Dermatology; Gastroenterology and Proctology, Clinical Pathology; Neurosurgery and Neurology; Nuclear Medicine, Radiology; Obstetrics and Gynecology, Urology; Ophthalmology; Otolaryngology; Physical Medicine and Rehabilitation; Plastic and Reconstructive Surgery; Rheumatism

3:00 p.m.—Meeting, Widows and Orphans Society 4:00 p.m.—Annual Meeting—Board of Governors of MIIE

6:30 p.m.-Inaugural Reception

8:00 p.m.-Inaugural Dinner-Dance

Monday, May 17, 1982

6:30 a.m.—Essex County Breakfast Caucus

6:30 a.m.—Union County Breakfast Caucus

8:00 a.m.—Registration Opens

8:00 a.m.-Auxiliary County Presidents' Breakfast

9:00 a.m.—Message Center Opens; Scientific, Informational, and Insurance Exhibits Open

9:00 a.m.-House of Delegates (to consider Reference Committee reports)

10:00 a.m.—Auxiliary Post-Convention Board Meeting

12:00 noon-Scientific, Informational, and Insurance Exhibits Close; Auxiliary Arts and Hobbies Close; AMA-ERF Boutique Closes

12:00 p.m.—House of Delegates adjourns for lunch 1:30 p.m.—House of Delegates reconvenes

4:00 p.m.-House of Delegates adjourns

5:00 p.m.-Board of Trustees' meeting

der the direction of Dr. James Mackenzie, Professor and Chairman of our Department of Surgery, and his associate, Dr. Alan Spotnitz, has been in operation for some 18 months. A new cardiac catheterization laboratory, with the most modern equipment available, is operating under the direction of Dr. John Kostis, Professor of Medicine. And the 11-bed Pediatric Intensive Care Unit, featuring 4 infant beds, 6 beds for older children, and an isolation area, has received referrals from throughout the state since its opening in August, 1980. It is directed by Dr. Victor N. Blankson.

This broad expansion of sophisticated services is available to community and faculty physicians, a condition that underscores the kind of close partnership developed between the medical school, the hospital, and New Brunswick and its environs. Among the benefits for the people will be the localization of medical specialty services that until now were available only in New York, Philadelphia, or Boston—a situation that often caused a major disruption to family life and severely compounded the problem of the illness.

In terms of medical education, the 1982-83 academic year will see approximately 100 medical students and 115 residents receiving instruction and training at Middlesex General Hospital. Clearly, the role of this institution as a primary teaching hospital and an academic medical center is becoming increasingly more defined and important to medical education in the state.

The opening of the Medical Education Building will serve to continue the expansion of that role. The facility will provide offices and research laboratories for 150 faculty, support staff and technicians, a vivarium, auditorium, more than 20 conference rooms, and an 8,000square foot medical library, supported by both medical school and hospital.

Financing of the clinical campus was shared by the Middlesex General Hospital Board of Trustees, which was responsible for a \$47 million bond issue, and by the State of New Jersey, which contributed \$13 million—part of the funds realized in the New Jersey Medical Education Facilities Bond Act of 1977—for construction of the Medical Education Building.

It is no secret that the realization of this academic medical center in the city required complex and sensitive negotiations. Faculty and community physicians worked hard in resolving the problems involved in planning services to the area. In addition, numerous governmental and community-based groups took an active role as representatives of the citizenry.

It is no wonder that we look forward to this campus dedication with excitement and enthusiasm. I am confident that the same dedication that brought us this far will ensure the success of our efforts in the future.

MSNJ Auxiliary Phyllis Romano, President

The American experience is pluralistic and many colored. But a common element runs throughout American society—that of people rising to the challenge. Our ancestors did not will us our wonderful heritage by blindly allowing nature, economics, politics, geography, or other forces to lead them where they did not want to go. Our ancestors seized opportunities; they grappled with obstacles and led where the path was obscure and difficult.

Our path today, in medicine, is obscure and difficult. Our profession (because the spouse's profession is our profession) is beleaguered by enemies without and by apathy, complacency, inforance, self-interest, and turfdom within.

Society in the 1980s will not allow us such luxuries. Society will strip us of our pride, our livelihood, and our rights and privileges; but patients will suffer more—they will be deprived of the best medical care in the world.

We know the answer to the problems besetting us. We will share it with you. Hopefully, you will share it with your spouse who should do the following:

- 1. Shed complacency—get scared.
- 2. Become aware of the problems.
- 3. Find out where to find answers to the problems.
- 4. Start to have input—but in an organized and constructive way—that actually will affect outcomes.
 - 5. Show others the way.

If we do these things, we will be what desperately is needed: leaders of and for the medical profession.

Our Auxiliary is the proper structure and organization in which to carry out the five steps I mentioned, but the Auxiliary needs your spouse to implement such actions. Get active in our work and see the results.

The Auxiliary to the Medical Society of New Jersey and to the component county societies rapidly must develop a cadre of leaders who bravely will enter the frav.

Minority Students

Both New Jersey allopathic medical schools are listed as winners in *The New Physician* magazine's survey of minority-student enrollments at American medical schools. Based on 1980-1981 figures, the magazine found UMD-New Jersey Medical School fourth in the country among mainstream (nonminority) schools in percentage of minority students enrolled—17 percent. UMD-Rutgers Medical School was sixth, with 16.2 percent. The first school was Stanford; Harvard ranked between the two New Jersey schools.

It is heartening that the UMD school with the highest minority-student percentage continues to impress with its students' performances. Mean scores on the latest National Board Examination-Part I were 517 at UMD-New Jersey Medical School, as opposed to 507 for the nation as a whole. The school's pass rate was 94.7, as compared to a national rate of 90.9.*

Hereditary Disorders Program

New Jersey enacted legislation providing for the establishment of an hereditary disorders program. The Hereditary Disorders Act, effective February 11, 1982, directed the Department of Health to, among other things: establish guidelines for the early identification of persons born with hereditary disorders and standards for testing newborn infants; establish guidelines for the education and treatment of persons born with hereditary disorders; establish procedures for the referral of persons with hereditary disorders and their families to sources of medical treatment and financial assistance; and institute and carry out an educational program concerning hereditary disorders.

Summer Camp for Children

Camp Vacamas will be running a three-week, supervised program for asthmatics this summer. The program, for children ages 8 to 15, is cosponsored by the New Jersey Allergy Society. These children will be incorporated in with the regular campers. For further information on the program and scholarship awards for the summer camp, contact Camp Vacamas. (212) 677-3485.

^{*}From Dr. Stanley S. Bergen's monthly report to the Board of Trustees, Medical Society of New Jersey.





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Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY-David C. Lung, M.D., 273 Sunrise Blvd., Williamsville, NY 14221. China Medical (Taiwan) 1974. Board eligible. Group or partnership. Available July 1982.

Kung-Ho Liu, M.D., 1935-27C Eastchester Rd., Bronx, NY 10461. National University (Taiwan) 1964. Board eligible. Group, partnership, solo. Available July 1982.

S.K. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Partnership or group. Available.

CARDIOLOGY-Gerald I. Myers, M.D., 6324 Alderson St., Pittsburgh, PA 15217. Temple 1976. Also, general internal medicine. Board certified (IM). Group or partnership. Available.

N. Iyengar, M.D., 142 Hawkins Ave., Parsippany, NJ 07054. Mysore (India) 1971. Group, partnership, single, multiple specialty. Available.

V. Srinivasan, M.D., 353 E. 17th St., Apt. 22A, New York, NY 10003. Madras (India) 1975. Board certified (IM). Solo, group, partnership, other. Available July 1982

Walter P. Paladino, M.D., 163 Carr St., Providence, RI 02905. Einstein 1977. Also, general internal medicine. Board certified (IM). Group or partnership. Available July

Mohammad Riaz, M.D., 853 Avenue Z, Brooklyn, NY 11235. Khyber (Pakistan) 1971. Board eligible. Group or partnership. Available July 1982.

Narendra T. Agrawal, M.D., 502-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Also, general internal medicine. Board eligible. Associate, partner, hospital-based clinic. Available.

FAMILY MEDICINE-Leslie Lynn Pawson, M.D., 19236 Bryant St., Apt. 13, Northridge, CA 91324. McMaster (Canada) 1979. Board eligible. Group. Available August 1982.

GASTROENTEROLOGY-Bruce J. Langner, M.D., 12 Cedar Pond Drive, Apt. 9, Warwick, RI 02886. Guadalajara (Mexico) 1976. Board eligible. Group or partnership (IM and gastroenterology.) Available July 1982.

Jeffrey J. Kutscher, M.D., 435 East 70th St., New York, NY 10021. Case Western 1977. Also, general internal medicine. Board certified (IM). Group, partnership, solo, institutional. Available June 1982.

Kannappan Mohan, M.D., 380 N. Broadway, Yonkers, NY 10701. Madurai Medical (India) 1973. Board certified (IM). Solo or partnership. Available July 1982.

Mathew K. Kandathil, M.D., 94 Village Lane, Branford, CT 06405. Grant (India) 1974. Also, general internal medicine. Board certified (IM). Group, partnership, associate. Available July 1982.

Muhammad A. Nyazee, M.D., 1650 Selwyn Avenue, Bronx, NY 10457. Also, general internal medicine. Board certified (IM). Solo/group practice, partnership, academic (gastroenterology). Available July 1982.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available July 1982.

HEMATOLOGY/ONCOLOGY-Michael Willen, M.D., 164 Homestead Ave., Albany, NY 12203. New York Medical 1976. Also, general internal medicine. Board certified (IM). Board eligible. Group or partnership. Available July 1982

Douglas Faig, M.D., 3450 Wayne Avenue, Apt. 23-D, Bronx, NY 10467. NYU 1976. Also, general internal medicine and blood banking. Board certified (IM). Board eligible. Group or partnership. Available July 1982.

INDUSTRIAL MEDICINE-Albert Abraham, M.D., 11 Cromwell Drive, Convent Station, NJ 07961. New York University. Board certified (IM). Medical directorship (preferably in or near Morris County). Available.

INFECTIOUS DISEASES-Alan Lin-Greenberg, M.D., 353 East 17th St., 10B, New York, NY 10003. Albany Medical 1975. Board certified (IM). Group or academic. Available July 1982.

INTERNAL MEDICINE-Randolph J. Swiller, M.D., -182-11 Henley Road, Jamaica Estates, NY 11432. Chicago 1972. Board eligible. Group or partnership. Available.

Harish N. Nagarsheth, M.D., 12 Marlboro Court, Maywood, NJ 07607, Seth (India) 1975. Subspecialty, cardiology. Board eligible. Hospital-based, solo, partnership, group. Available July 1982

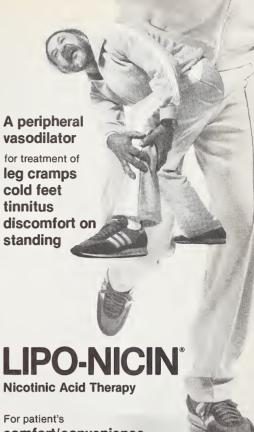
Raymond Cogen, M.D., 1742-A Kendrick Street, Philadelphia, PA 19152. Hahnemann 1978. Board eligible. Private practice, partnership, salaried position with one or more physicians. Available.

Andrew Rashkow, M.D., 208 Greta Street, West Haven, CT. Graz (Austria) 1978. Board eligible. Group, solo, partnership. Available July 1982.

Richard A. Balter, M.D., Division of General Internal Medicine, Georgetown University Hospital, 3800 Reservoir Road, NW, Washington, DC 20007. NYU 1978. Board eligible. Partnership or group. Available July 1982.

Jerome R. Weiner, M.D., 6045 Spender Ave., Bronx, NY 10471. Mount Sinai 1977. Subspecialty, pulmonary medicine. Board certified. Solo or group private practice in pulmonary diseases. Available July 1982.

Kabul S. Garg, M.D., 129 York St., Apt. 6-M, New Haven, CT 06511. Patiala (In-



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dia) 1972. Subspecialty, cardiology. Solo or group practice. Available July 1982.

Kannappan Mohan , M.D., 380 N. Broadway, Yonkers, NY 10701. Madurai Medical (India) 1973. Subspecialty, gastroenterology. Board certified (IM). Solo or partnership. Available July 1982.

Mukesh N. Mathur, M.D., 853 Avenue Z, Brooklyn, NY 11235. Rajasthan (India) 1976. Board eligible. Group, partnership, solo. Available.

Alan Lin-Greenberg, M.D., 353 East 17th St., 10B, New York, NY 10003. Albany Medical 1975. Subspecialty, infectious diseases. Board certified (IM). Group or academic. Available July 1982.

Jitendra C. Shah, M.D., 288 Bay 38th St., 6D, Brooklyn, NY 11214. Seth G.S. Medical (India) 1974. Subspecialty, pulmonary medicine. Board certified (IM). Hospitalbased or group. Available July 1982.

N. Iyengar, M.D., 142 Hawkins Ave., Parsippany, NJ 07054. Mysore (India) 1971. Subspecialty, cardiology. Group, partnership, single, multispecialty group. Available.

V. Srinivasan, M.D., 353 E. 17th St., Apt. 22A, New York, NY 10003. Madras (India) 1975. Subspecialty, cardiology. Board certified (IM). Solo, group, partnership, other. Available July 1982.

Linda S. Alexander, M.D., 3901 Conshohocken Ave., Apt. #277, Philadelphia, PA 19131. Hahnemann 1978. Group, partnership, HMO. Available July 1982.

Krishan M. Mathur, M.D., 64-B Brighton Court, Brooklyn, NY 11235. SMS Medical, Jaipur (India) 1976. Board eligible. Group or partnership. Available July 1982. Arthur C. Tutela, M.D., 132 Midland Place, Newark, NJ 07106. Bologna (Italy) 1974. Also, general medicine. Group, partnership, clinic, institution. Available.

Muhammad A. Nyazee, M.D., 1650 Selwyn Ave., Bronx, NY 10457. Nishtar (Pakistan) 1974. Subspecialty, gastroenterology. Board certified. Solo/group practice, partnership, academic (gastroenterology). Available July 1982.

Thomas A. Neef, M.D., P.O. Box 3249, York, PA 17402. Georgetown 1975. Board eligible. Solo, associate, group. Available. Harry N. Brandeis, M.D., Ten Overlook Rd., Apt. 51, Summit, NJ 07901. Bologna (Italy) 1979. Board eligible. Group, partnership, solo. Available July 1982.

Narendra T. Agrawal, M.D., 503-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Subspecialty, cardiology. Board eligible. Associate, partner, hospitalbased clinic. Available.

Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Subspecialty, pulmonary medicine. Group or solo (hospital-based). Available July 1982.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available July 1982.

Melvin Polkow, M.D., 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Subspecialty, pulmonary medicine. Board certified (IM). Group, partnership, hospital-based. Available July 1982.

NEUROLOGY—James C. McVeety, M.D., 7740 Camino Real, Miami, FL 33143. Bologna (Italy) 1975. Also, general internal medicine. Board certified (IM). Any type practice. Available June 1982.

Stuart R. Stark, M.D., 12309 Featherwood Dr., Apt. 42, Silver Spring, MD 20904. Maryland 1978. Group or partnership. Available July 1982.

OBSTETRICS/GYNECOLOGY—Rodger A. Fraser, M.D., 109 Scott St., Joliet, IL 60431. Howard 1974. Board eligible. Solo, group. Available June 1982.

Dorit Yabrov, M.D., 70 Roper Rd., Princeton, NJ 08540. Leningrad (Russia) 1961. Group, partnership, outpatient clinic, abortion clinic. Available.

Yvonne S. Thornton, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/fetal medicine. Board certified (both). Partnership or group (single specialty), Morris or Middlesex counties preferred. Available August 1982.

Ibrahim Beruti, M.D., 1236 Napoleon St., Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified. Solo. Available.

Gary S. Rosenberg, M.D., 245-20 Grand Central Parkway, Bellerose, NY 11426. SUNY-Downstate 1977. Board eligible. Group or partnership. Available.

OPHTHALMOLOGY—Florence S. Lee, M.D., 676 Kent Ave., Teaneck, NJ 07666. SUNY-Downstate 1976. Board certified. Partnership or group. Available.

Shearwood J. McClelland, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia Physicians and Surgeons 1974. Board certified. Partnership or group. Available January 1983.

OTOLARYNGOLOGY—Arnold I. Charow, M.D., 6 Country Club Drive, Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.) Avail-

Richard G. Shiffman, M.D., 8101 Camino Real, Suite C-318, Miami FL 33143. Tufts University. Board eligible. Group or partnership. Available July 1982.

PATHOLOGY—Vasundhara G. Untawale, M.D., 281 Farmingdale Rd., Wayne, NJ 07470. India 1972. Board eligible. Hospital. Available July 1982.

Parbati Basu, M.D., 3400 Henry Ave., Philadelphia, PA 19129. N.R.S. (India) 1975. Board eligible. Any type practice. Available July 1982.

Donald J. MacPherson, M.D., 3 Highview Dr., Livingston, NJ 07039. Vermont 1948. Board certified (AP, CP, RP). Available May 1982.

PEDIATRICS—Robert G. Dorr, M.D., 753 Montclair St., Pittsburgh, PA 15217. Maryland 1979. Board eligible. Group. Available July 1982.

Daryl H. O'Brien, M.D., 2808 Omah St., Durham, NC 27705. Dartmouth 1979. Board eligible. Group or partnership. Yashaswini H. Shah, M.D., 165 Lynch Rd., Middletown, NJ 07748. M.S. University (India) 1974. Board eligible. Group, partnership, solo. Available.

B. R. Prasad Achanti, M.D., #310, 11135-83 Ave., Edmonton, Alberta, Canada 6G-2C6. Guntur Medical College (India) 1975. Board eligible. Available July 1982.

PULMONARY DISEASES—Somnath N. Naik, M.S., 288 Bay 38 St., Apt. 5-U, Brooklyn, NY 11214. Seth G.S. (India) 1976. Also, general internal medicine. Board certified (IM). Any type practice. Available July 1982.

Jitendra C. Shah, M.D., 288 Bay 38th St., 6D, Brooklyn, NY 11214. Seth G.S. Medical (India) 1974. Board certified (IM). Hospital-based or group. Available July 1982.

Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Also, general internal medicine. Group or solo, hospital-based. Available July 1982.

Melvin Polkow, M.D. 240-23 69th Ave., Douglaston, NY 11362, SUNY-Downstate 1977. Also general internal medicine. Board certified (IM). Group, partnership, hospital-based. Available July 1982.

RADIOLOGY—Stephen Phillip Laufgraben, M.D., 19 Poplar Ave., Wheeling, WV 26003. University of Arkansas (1973) Board certified. Single specialty group, hospital-based, private. Available May 1982.

SURGERY, GENERAL—Robert C. Kahn, M.D., 2516 North 4th St., Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available July 1982. Lawrence W. Silvers, M.D., 1350 West Bethune Ave., Apt. 2002, Detroit, MI 48202. Albany 1976. Also, vascular surgery. Board eligible. Group or partnership, with medical school affiliation. Available July 1982.

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Milan (Italy) 1972. Also colon and rectal surgery. Group or partnership. Available July 1982.

B. Paul, M.D., 5538 Matanzas Drive, Sebring, FL 33870. Lithuania 1972. Special interest, vascular surgery. Board certified. Group, partnership, solo. Available.

SURGERY, ORTHOPEDIC—Mark M. Kramer, M.D., 3450-12 Wayne Ave., Bronx, NY 10467. Vanderbilt 1976. Board eligible. Private practice. Available.

SURGERY, VASCULAR—Ahmed I. Khan, M.D., 5627 North 16th St., Apt. H-8, Phoenix, AZ 85016. Dacca (Bangladesh) 1972. Also, general surgery. Any type practice. Available.

Lawrence W. Silvers, M.D., 1350 West Bethune Ave., Apt. 2002, Detroit, MI 48202. Albany 1976. Also, general surgery. Board eligible. Group or partnership, with medical school affiliation. Available July 1982.

UROLOGY—Dilip R. Patel, M.D., 483 Ocean Parkway, Apt. 4-B, Brooklyn, NY 11218. Baroda (India) 1973. Board eligible. Any type practice. Available.

Alexander M. Pagnani, M.D., 3510 Avenue H, Apt. 2-B, Brooklyn, NY 11210. Guadalajara (Mexico) 1976. Board eligible. Any type practice. Available July 1982.

Ramesh K. Chopra, M.D., 1920 S. First

St., Minneapolis, M155454. Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available August 1982.

Frederick Greenstein, M.D., 732 E. 91st St., Brooklyn, NY 11236. SUNY-Downstate 1972. Board eligible. Group, partnership, academic, solo. Available July 1982.

Tung-Hua Chieng, M.D., 190 Mineola Blvd., Apt. 4-N, Mineola, NY 11501. Taiwan 1973. Board eligible. Group, partnership, solo. Available July 1982.

H.S. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Group, partnership, solo. Available July 1982.

216th Annual Meeting Medical Society of New Jersey May 14-17, 1982

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Guest Speakers:

John Fisher, M.D., F.A.C.C.

Associate Professor of Medicine, Albert Einstein College of Medicine, Bronx, New York.

William Frishman, M.D., F.A.C.P.

Associate Professor of Medicine, Albert Einstein College of Medicine, Bronx, New York.

Burton Sobel, M.D., F.A.C.P.

Professor of Medicine, Washington University School of Medicine, St. Louis, Missouri.

For information and registration forms, please call the Department of Medicine at (201) 442-3700, extension 2105. Approved for 4 hours Category I AMA Physicians Recognition Award.

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rlando, FE July 23-25

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May 14-15 St. Louis, MO September 24-25 Philadelphia, PA

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Ambulatory Electrocardiography: Clinical Applications, Methodology & Interpretation

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August 6-8 **Concord Resort** Kiamesha Lk., NY [The Catskills] August 20-22

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CME CALENDAF

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

ANESTHESIOLOGY

June

17 Controversial Issues in Neuroanesthesia 4-5:30 p.m.—College Hospital, Newark (NJ Medical School, Dept. of Surgery and AMNI)

CARDIOLOGY

May

12 Cardiology 1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)

16 Assessment of Left Ventricular Function by 2-D Echocardiography and Valvular Heart Disease 9-11:30 a.m.—Resorts International, Atlantic City (AMNJ Section on Cardiovascular

Diseases)

19 latrogenic Heart Disease
9-11 a.m.—Roosevelt Hospital, Menlo
Park
(Middlesex General Hospital and AMNJ)

June

13 Abnormalities of the EKG in the Absence of Heart Disease 12 noon—St. Mary's Hospital, Orange (AMNJ)

21 Cardiac Evaluation of the Child and Adolescent for Sports Participation 12 noon-1 p.m.—Mountainside Hospital, Montclair (Mountainside Hospital and AMNJ)

MEDICINE (includes Family, Internal, General Medicine, and Dermatology)

May

1- Dermatopathology: The Third Annual Practical Self-Assessment Course 8:30 a.m.-4:45 p.m.—NJ Medical School, Newark (UMDN) and AMNJ)

5 Medical Grand Rounds 11:30 a.m.—VA Medical Center, East Orange (Endocrinology Section of AMNJ)

5 Review of Occupational Disease
1:30-2:30 p.m.—Rutgers Community
Health Plan, 57 U.S. Highway 1,
New Brunswick
(Rutgers Community Health and
AMNJ)

5 Dinner Meeting 6-9:30 p.m.—Holiday Inn, East Orange (Endocrinology Section of AMNJ)

5 Mixed Aerobic and Anaerobic Infections 12 Latent and Concealed Infections 9-11 a.m.—Roosevelt Hospital, Menlo Park (Middlesex General Hospital and AMNJ)

5 Endocrine Conferences

3:30-5 p.m.—Rotates between Newark
 Beth Israel Medical Center, College

26 Hospital, Newark, and VA Medical Center, East Orange (Endocrinology Section of AMNJ)

5 Treatment of Anaerobic Infection 9 Infectious Disease

1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)

6 Medical Grand Rounds 9:30 a.m.—Newark Beth Israel Medical Center (Endocrinology Section of AMNJ)

6 Management of Rheumatoid Arthritis 11 a.m.-12:30 p.m.—St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and A MNJ)

7 Grand Rounds

14 8:30-9:30 a.m.—United Hospitals Medical Center, Newark (United Hospitals Medical Center)

7 Medical Grand Rounds 11:30 a.m.—College Hospital, Newark (Endocrinology Section of AMNJ)

7 Morbid Obesity 12 noon—Freehold Area Hospital (AMNJ)

7 Septic Arthritis 12 noon—St. Mary's Hospital, Orange (AMNJ)

7 Renal Conferences in Nephrology

21 4-5 p.m.—College Hospital, Newark (Nephrology Society of NJ and Nephrology Section of AMNJ)

11 Hypertension 11 a.m.—Greystone Park Psychiatric (AMNJ)

2 Hematuria 2 p.m.—John E. Runnells Hospital, Berkeley Heights (AMNJ)

12 Lupus Nephritis
7:30-8:30 p.m.—Ramada Inn, Clark
(The Nephrology Society of NJ and
AMNJ)

13 Prostaglandins, Platelets, Thrombosis, and Antiplatelet Agents 12 noon-1 p.m.—Mountainside Hospital, Montclair (Mountainside Hospital and AMNJ)

16 Calcium Antagonists and Cardiovascular Disorders, Hyperalimentation, and Laboratory Tests which Aid in the Diagnosis of Autoimmune Diseases 9-11 a.m.—Resorts International, Atlantic City (NJ Society of Internal Medicine and AMNJ)

6 Common Musculoskeletal Problems in Primary Care 9:45-11:45 a.m.—Resorts International, Atlantic City (NJ Academy of Family Physicians and

16 Symposium on Broncho-Spastic Diseases 9-11:30 p.m.—Resorts International, Atlantic City (NJ Chapter, American College of Chest Physicians and AMNJ) Dermatology Symposium

12:30-3:30 p.m.—Resorts International, Atlantic City (NJ Dermatological Society and AMNJ)

16 Your Next Forty Years
1 p.m.—Resorts International, Atlantic
City
(NJ Medical Women's Association and
AMNJ)

16 Recent Advances in Rheumatology of Interest to Primary Physicians
1-2:45 p.m.—Resorts International, Atlantic City
(NJ Rheumatism Society and AMNJ)

16 Physical Medicine and Rehabilitation 1-3 p.m.—Resorts International, Atlantic City (NJ Society of Physical Medicine and Rehabilitation and AMNJ)

16 Gastroenterology/Proctology Symposium I-3 p.m.—Resorts International, Atlantic City (NJ Gastroenterological Society, NJ Society of Pathologists, and AMNJ)

17 Vasodilator Therapy and Ischemic Heart Disease 12:30-1:30 p.m.—West Hudson

Hospital, Kearny (West Hudson Hospital and AMNJ) 18 Diabetic Acidosis and Hyperosmolar

Coma
12 noon—St. Mary's Hospital, Orange
(AMNJ)

18 Effect of Charge on Immune Complex Localization on the Glomerular Basement Membrane 4-5 p.m.—Middlesex General Hospital, New Brunswick (UMD-Rutgers Medical School and AMNJ)

19 Drug Reactions and Interactions 9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and Medical Center and AMN)

19 Rutgers Dermatological Conference 6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Highway I, New Brunswick (UMDNJ and AMNJ)

19 Rheumatic Diseases in the Elderly Small Cell Bronchogenic Carcinoma 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

21 Gout 12 noon—Freehold Area Hospital (AMNJ)

25 Peripheral Vascular Disease 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

25 Cytochemistry in the Classification of Leukemia and Lymphoma 6:30-10 p.m.—Coachman Inn, Cranford (NJ Blood Club and AMNJ)

25 Hyperalimentation 12 noon-1 p.m.—Hospital Center at Orange (AMNJ)



ADVANCES IN GASTROENTEROLOGY

June 26, 1982 Golden Nugget Hotel Atlantic City, N.J.

Fee: \$125.00

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Course Description:

The purpose of this course is to provide the primary care practitioner, internist and gastroenterologist with an updated approach to the diagnosis and treatment of gastrointestinal illnesses.

Pathophysiology will be emphasized. The course is sponsored by the Gastrointestinal Section of the Hospital of the University of Pennsylvania and the Department of Medical Education of Underwood Memorial Hospital.

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For further information write or call:
Robert Mackowiak, M.D.
Associate Dean
Office of Continuing Medical Education
Jefferson Medical College
1025 Walnut Street
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(215) 928-6992



Office Dermatology 11:30 a.m.-12:30 p.m.-Columbus Hospital (Columbus Hospital and AMNJ)

Blood Pressure and Exercise 2-4 p.m.—Deborah Heart and Lung Center, Browns Mills (Deborah Heart and Lung Center and

June

1 Thyroid Disease

12 noon-1 p.m.-Hospital Center at (AMNJ)

2 Medical Treatment of Ulcerative Colitis 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

2 Orthopedic Problems 10:30 a.m.-St. Mary's Hospital, Passaic (AMNJ)

2 Medical Grand Rounds 11:30 a.m.-VA Medical Center, East Orange (Endocrinology Section of AMNJ)

2 Hypertension 1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ) 3 Medical Grand Rounds

9:30 a.m.-Newark Beth Israel Medical Center (Endocrinology Section of AMNJ)

3 The Tachyarrhythmias 7:45 a.m.-4:30 p.m.-Newark Beth Israel Medical Center (Newark Beth Israel Medical Center and AMNJ)

4 Medical Grand Rounds 11:30 a.m.—College Hospital, Newark (Endocrinology Section of AMNJ)

4 Wolff-Parkinson-White Syndrome 12 noon-St. Mary's Hospital, Orange (AMNJ)

4 Systemic Lupus 12 noon-Freehold Area Hospital (AMNJ)

8 Rheumatology (Arthritis) 11 a.m.-Greystone Park Psychiatric Hospital (AMNJ)

10 Intracranial Infections 11 a,m,-12:30 p,m,-St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)

15 Uremic Anemia-A Hyperproliferative Disorder? 4-5 p.m.-Middlesex General Hospital New Brunswick (UMDNJ and AMNJ)

16 Dermatological Conference 6-9 p.m.-Rutgers Community Health Plan, 57 U.S Highway 1, New Brunswick (UMDNJ and AMNJ)

17 Update: Immune Responses, Defense Mechanisms, and Prostaglandins 5-6:30 p.m.—Somerset Medical Center Somerville (Somerset Medical Center and AMNJ)

18 Leukemia-Marrow Transplants 12 noon-Freehold Area Hospital (AMNJ)

21 Bleeding Disorders 12:30-1:30 p.m.-West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ)

21 Gastrointestinal Bleeding 7-8 p.m.—Paul Kimball Hospital, Lakewood (AMNJ)

22 Acute Renal Failure 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

NEUROLOGY/PSYCHIATRY

May

3 Maternal Ambivalence and a Schizoaffective Psychosis 8-10 p.m.-199 Chittenden Road, Clifton (Essex Psychiatric Seminar and AMNJ)

Seminar in Psychotherapy 8:30-10:30 p.m.-Claridge House II, Apt. 10N East, Verona (NJ Psychoanalytic Society and AMNJ)

Psychiatric Case Conference

11 7:30-9:30 a.m.—Trenton Psychiatric

18 Hospital

25 (Trenton Psychiatric Hospital and AMNJ)

Multiple Sclerosis 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

Child Psychiatry Case Conference

12 8:30-10:30 a.m.—Trenton Psychiatric

17 Hospital

(Trenton Psychiatric Hospital and 26 AMNJ)

5 Anxiety 12 Adolescent Depression

19 Antipsychotic Drugs in Ambulatory Patients 26 Psychological Interventions with Chronic

Hemodialysis Patients 1-3 p.m.—Ancora Psychiatric Hospital, Hammonton (Ancora Psychiatric Hospital and AMNJ)

Grand Rounds in Psychiatry 1:30-3 p.m.-NJ Medical School, Newark (UMDNJ and AMNJ)

6 Pseudoseizures and Differential

13 **Excessive Daytime Sleepiness:** Narcolepsy and the Hypersomnia Sleep Apnea Syndrome 12 noon-1 p.m.—Carrier Foundtion, Belle Mead

(Carrier Foundation and AMNJ)

Dementia 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

12 Distinguished Speaker Series 10:30 a.m.-12 noon-NJ Medical School, Newark (UMDNJ and AMNJ)

16 Diagnosis and Treatment of Depression 9-11:30 a.m.—Resorts International, Atlantic City (NJ Psychiatric Association and AMNJ)

Neurosurgery and Neurology 1-3 p.m.—Resorts International, Atlantic City (NJ Neurosurgical Society and AMNJ)

17 Metabolic Disorders Presenting as Reye's Syndrome 12 noon-1 p.m.-Mountainside Hospital, Montelair

(Mountainside Hospital and AMNJ)

17 Clinical Problems in Child Psychiatry 8:30-10:30 a.m.-301 Broad Ave., Englewood (NJ Psychoanalytic Society and AMNJ)

25 Psychopharmacology in Practice 26 9:30 a.m.-4:30 p.m.-Carrier

Foundation, Belle Mead (Carrier Foundation and AMNJ)

26 Problems in Alcoholism 9-11 a.m.—Roosevelt Hospital, Menlo

(Middlesex General Hospital and AMNJ) 27 John B. Atkinson Memorial Lecture 3-5 p.m.-Carrier Foundation,

Belle Mead (Carrier Foundation and AMNJ)

June

Psychiatric Case Conference

8 7:30-9:30 a.m.—Trenton Psychiatric

15 Hospital

22 (Trenton Psychiatric Hospital and 29

AMNJ)

Grand Rounds in Psychiatry 1:30-3 p.m.-NJ Medical School, Newark (UMDNJ and AMNJ)

Child Psychiatry Case Conference 2

8:30-10:30 a.m.—Trenton Psychiatric 16 Hospital

23 (Trenton Psychiatric Hospital and

30 AMNJ)

Benzodiazepines: Mechanism, Use, and Effects

10 The Use and Misuse of Sedatives/Hypnotics 12 noon-1 p.m.-Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

7 Psychodynamics of a Professional Person's Group 8-10 p.m.-22 High Street, Summit (Essex Psychiatric Seminar and AMNJ)

7 Seminar in Psychotherapy 8:30-10:30 p.m.—Claridge House II Apt. 10N East, Verona (NJ Psychoanalytic Society and AMNJ)

Violence in Clinical Practice-Causes and Prescriptions for Cure

9:30 a.m.-4:30 p.m.-Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

9 The Psychiatric Expert: Legal Testimony and the Psychiatrist 3-4:30 p.m.—Fair Oaks Hospital, Summit (Fair Oaks Hospital and AMNJ)

16 Posttraumatic Stress Disorders in the Vietnam Veteran 10:30 a.m.-12 noon-NJ Medical School, Newark (UMDNJ and AMNJ)

21 Clinical Problems in Child Psychotherapy 8:30-10:30 p.m.-301 Broad St., Englewood (NJ Psychoanalytic Society and AMNJ)

Women's Mental Health: Changing

Lives, Changing Problems 9 a.m.-4:30 p.m.-Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

OBSTETRICS/GYNECOLOGY

May

- 5 Vaginal Birth Following Cesarean Section 7-8 p.m.—L'Affaire Restaurant, Rt. 22 Mountainside (UMDNJ and AMNJ)
- 12 Ovarian Carcinoma 8:30-9:30 a.m.—Garden State Community Hospital, Marlton (Garden State Community Hospital and AMNJ)
- 20 Rendezvous for Implantation
 21 6:30-8:30 p.m.—Rutgers Medical School, Piscataway

(UMDNJ and AMNJ)

PATHOLOGY

May

- 1- Dermatopathology: The Third Annual 2 Practical Self-Assessment Course
 - 8:30 a.m.-4:45 p.m.—NJ Medical School, Newark (UMD-NJ Medical School and AMNJ)
- 16 Management of Stage I and II Breast Cancer
 8:30 a.m.-12 noon—Resorts
 International, Atlantic City
 (NJ Chapter American College of
 Surgeons, Oncology Society of NJ,
 Society of Pathologists, Rutgers Medical
 School, and A MNJ)
- 16 Gastroenterology/Proctology Symposium 1-3 p.m.—Resorts International, Atlantic City (NJ Gastroenterological Society, NJ Society of Pathologists, and AMNJ)
- 22 Annual Meeting 9 a.m.-2 p.m.—UMD-Rutgers Medical School (NJ Society of Pathologists and AMNJ)

June

9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

PED1ATRICS

May

- 4 Neonatological Care of Premature Babies
- 12 Neonatal Problems
 11:30 a.m.—Columbus Hospital,
 Newark
 (AMNJ)
- 13 Pediatric Sonography
 7:30-9:30 p.m.—Overlook Hospital,
 Summit
 (NJ Institute of Ultrasound in Medicine
 and AMNJ)
 - Lecture Series-Pediatric Subspecialties 8:45-9:45 a.m.—Overlook Hospital, Summit (Overlook Hospital, Columbia University College of Physicians and Surgeons, and AMNJ)
- 16 Nuclear Medicine and Radiology 1-2:30 p.m.—Resorts International, Atlantic City (NJ Chapter, American College of Nuclear Medicine, Radiological Society of NJ, and AMNJ)
- 17 Metabolic Disorders Presenting as Reye's Syndrome
 12 noon-1 p.m.—Mountainside Hospital, Montclair
 (Mountainside Hospital and AMNJ)
- 25 Chronic Lung Disease in Newborns 8:30-10:30 a.m.—St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)

June

11 Lecture Series-Pediatric Subspecialties 8:15-9:45 am.—Overlook Hospital, Summit (Overlook Hospital, Columbia University College of Physicians and Surgeons, and A MNJ)

RADIOLOGY

May

6 Skeletal Radiography

5:30-6:30 p.m.—Overlook Hospital, Summit (Overlook Hospital and AMNJ)

13 Pediatric Sonography
7:30-9:30 p.m.—Overlook Hospital,
Summit
(NJ Institute of Ultrasound in Medicine
and A MNJ)

- 19 Radiotherapy Section Dinner Meeting 6:30 p.m.—The Manor, East Orange (Radiotherapy Section of AMNJ)
- 20 Pulmonary Problems in the Older Adolescent and the Young Adult 7:15 a.m.—St. Barnabas Medical Center, Livingston (Radiological Society of NJ and Diagnostic Radiology Section of AMNJ)
- 22 Advanced Echocardiography
 9-5 p.m.—Nassau Inn, Princeton
 (The National Foundation for Noninvasive Diagnostics and AMNJ)
- 26 Interventional Radiology 9:30-11:30 a.m.—Dover General Hospital (Dover General Hospital and Medical Center and AMNJ)

June

15 Ultrasound 12 noon-1 p.m.—Hospital Center at Orange (AMNJ)

GENERAL SURGERY

May

- 16 Spencer T. Snedecor Trauma Oration 1 p.m.—Resorts International, Atlantic City (NJ Committee on Trauma and AMNJ)
- 17 Breast Cancer 7-8 p.m.—Paul Kimball Hospital, Lakewood (AMNJ)
- 25 Approach to the Patient With Low Back Pain 8 p.m.—Warren Hospital, Phillipsburg (AMNJ)
- 25 Body Imaging 8-10 p.m.—Englewood Club, Englewood

Help for Impaired Physicians We need YOU to tell us about an impaired colleague!

Experience clearly shows that victims of chemical abuse and most psychiatric impairments are not capable of perceiving their behavior realistically. Therefore, they are incapable of reaching out by themselves for the help needed to avoid irreversible damage to themselves and others, and to take the first step toward rehabilitation.

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(Englewood Surgical Society, Englewood Dept. of Medical Education, and AMNJ)

June

3 Arthritis-Concepts of Surgical Management

11 a.m.-12:30 p.m.—St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)

22 Management of Blood Gases in Surgical Patients

8-10 p.m.—Englewood Club, Englewood (Englewood Surgical Society, Englewood Hospital, and AMNJ)

SURGICAL SPECIALTIES (includes ENT, Neurosurgery, Ophthalmology, Orthopedic, Plastics, and Vascular Surgery)

May

- 5 Chronic Pain
 - 9:30-11:30 a.m.—Dover General (Dover General Hospital and AMNJ)
- 5 Breast Cancer Update-1982
 - 10 a.m.-3 p.m.-Overlook Hospital, Summit (Overlook Hospital, American Cancer Society, Columbia University Comprehensive Cancer Center, and AMNJ)

Microsurgery in Gynecology

- 7:45 a.m.-4:45 p.m.
- 7 8 a.m.-4:45 p.m.
- 8:30 a.m.-12:15 p.m.-Newark Beth Israel Hospital (UMDNJ and AMNJ)
- 16 Management of Stage I and II Breast Cancer

8:30 a.m.-12 noon-Resorts International, Atlantic City (NJ Chapter American College of Surgeons, Oncology Society of NJ, Society of Pathologists, Rutgers Medical School, and AMNJ)

16 Acute Spinal Injury Care 9-11:30 a.m.-Resorts International, Atlantic City (NJ Chapter, American College of Emergency Physicians, and AMNJ)

Reanimation of Paralyzed Face 1-2:30 p.m.—Resorts International, Atlantic City (AMNJ Section on Plastic and Reconstructive Surgery)

16 Symposium on Outpatient Ophthalmic Surgery 1-2:45 p.m.—Resorts International, Atlantic City (NJ Academy of Ophthalmology and Otolaryngology and AMNJ)

16 Neurosurgery and Neurology 1-3 p.m.-Resorts International, Atlantic City (NJ Neurosurgical Society and AMNJ)

16 Head and Neck Surgery 1-3 p.m.—Resorts International, Atlantic City (NJ Academy of Ophthalmology and Otolaryngology and AMNJ)

Medical Management Subarachnoid Hemorrhage 4-5:30 p.m.—College Hospital, Newark (UMDNJ and AMNJ)

June

Surgical Update in Gastrointestinal Disease 1-5 p.m.—St. Barnabas Medical Center. Livingston (NJ Gastroenterological Society and AMNJ)

16 Colon and Rectal Surgery 10:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ)

MISCELLANEOUS

May

- 5 Malpractice 10:30 a.m.-St. Mary's Hospital, Passaic (AMNJ)
- Cost Issues in Clinical Practice 9 a.m.-4:30 p.m.-Carrier Foundation-Belle Mead (Carrier Foundation and AMNJ)
- 15- Annual Meeting MSNJ
- 16 Resorts International, Atlantic City (MSNJ and AMNJ)
- 16 Computer Applications in Office Practice 9-11:30 a.m.-Resorts International, Atlantic City (NJ Orthopaedic Society and AMNJ)
- 20 A Medical Enquiry into Why James Joyce Wrote As He Did or Why Does Anybody Do What He Does? 5-6:30 p.m.—Somerset Medical Center, Somerville (Somerset Medical Center and AMNJ)
- 26 Annual Awards Dinner Meeting 6 p.m.-The Chanticler, Millburn (AMNJ)
- 27 Malpractice 11 a.m.-12:30 p.m.-St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)



OBITUARIES

Dr. Edwin L. Ciccone

A member of our Essex County component, Edwin Lawrence Ciccone, M.D., of Verona, died on February 8, 1982. Born in 1913, Dr. Ciccone was graduated from Hahnemann Medical School in 1938 and interned at the Newark City Hospital. He served as Chief Surgeon for the Newark Fire Department for 21 years until his retirement in 1979. Dr. Ciccone was affiliated with Presbyterian Hospital and St. James Hospital, both in Newark; he was a member of the American Medical Association.

Dr. Vincent A. DeRosa

Vincent Alfonso DeRosa, M.D., a member of our Monmouth County component, died late last year. Born in 1914, in Long Branch, Dr. DeRosa was graduated from Hahnemann Medical College in 1941; he completed an internship at the Brooklyn Naval Hospital. Dr. De-Rosa practiced in his hometown for 18 years before retiring in 1979. He was a member of the American Medical Association and was affiliated with Riverview Hospital, Red Bank, During World War II, Dr. DeRosa served as a flight surgeon in the United States Navy, attaining the rank of lieutenant commander.

Dr. Henry Dobson

Henry Dobson, M.D., of Montvale, died on January 16, 1982. Born in New York City in 1932, Dr. Dobson was graduated from New York Medical College in 1962. He became board certified in family practice in 1971. At the time of his death, Dr. Dobson was Director of the emergency room at Pascack Valley Hospital, Westwood. A member of our Bergen County component, Dr. Dobson was a Fellow of the American Academy of Family Physicians.

Dr. Stanley J. Fink

An emeritus member of our Union County component, Stanley John Fink, M.D., died on January 27, 1982. Born in 1913 in Philadelphia, Dr. Fink was graduated from the Medical College of Virginia in 1938. He maintained a private practice in Roselle until his retirement. During his career, Dr. Fink was affiliated with Rahway Hospital, Elizabeth General Hospital, and St. Elizabeth Hospital. He was a member of the American Medical Association.

Dr. Otto S. Hensle

At the age of 75, Otto S. Hensle, M.D., of Hackensack, died on January 24, 1982. Born in 1906 in Carlstadt, Dr. Hensle was graduated from Cornell Medical School in 1934; he completed his internship at Bellevue, New York, and became board certified in otolaryngology in 1939. Administrator and former chief of ear, nose, and throat medicine at Hackensack Medical Center, Hackensack, Dr. Hensle was a member of our Bergen County component, the American Medical Association, and a Fellow of the International College of Surgeons, A major during World War II. Dr. Hensle served at the First General Hospital from 1942-46.

Dr. Carl H. Jorn

Word has been received of the death of Carl H. Jorn, M.D., of Princeton, on January 5, 1982. Born in 1909 in Germany, Dr. Jorn earned a medical degree at the University of Bonn, Germany, in 1935. Emigrating to the United States in the late 1950s, Dr. Jorn was affiliated in the field of neuropsychiatry with Veterans Administration Hospital, Lyons; Veterans Regional Office, Newark; and,

New Jersey Neuropsychiatric Institute, Princeton. A member of our Mercer County component, Dr. Jorn was a member of the American Medical Association.

Dr. Robert L. Krasney

Robert Louis Krasney, M.D., a past president of the Atlantic County Medical Society, died on February 3, 1982. Born in 1926 in Atlantic City, Dr. Krasney earned a medical degree at Jeferson Medical College of Philadelphia in 1953. He established a practice in internal medicine in his hometown and became board certified in that specialty. During his career, Dr. Krasney was affiliated with Atlantic City Medical Center.

Dr. Jack D. Levy

Jack David Levy, M.D., of Loveladies, a member of our Ocean County component, died on January 26, 1982. Born in 1905, Dr. Levy was graduated from Hahnemann Medical College, Philadelphia, in 1930. He was a general practitioner in Hackensack for 40 years until his retirement in 1975. Dr. Levy was a member of the American Medical Association and a Fellow of the American Academy of Family Physicians.

Dr. Philip L. Wolgin

A member of our Union County component, Philip Lawrence Wolgin died on January 20, 1982. Born in 1906, in Elizabeth, Dr. Wolgin was graduated from the Medical College of Virginia in 1933. For 45 years he was a practicing obstetrician in Elizabeth, affiliated with Elizabeth General Hospital and St. Elizabeth Hospital. He was a member of the American Medical Association and the American College of Obstetricians and Gynecologists.

BOOK REVIEWS

Benzodiazepines: A Review of Research Results

Stephen I. Szara, M.D., and Jacqueline P. Ludford (eds). National Institute on Drug Abuse, Department of Health and Human Services. Washington, DC, 1981. Pp 96.

Benzodiazepines, such as chlordiazepoxide (Librium®) and diazepam (Valium®), virtually have taken over the whole antianxiety and hypnotic market from the more dangerous barbiturates and the older and less effective meprobamate (Miltown®, Equanii®).

They have been used widely for about 20 years and have been considered relatively safe. However, in recent years they have had bad press; a hearing in 1979 by the Senate Subcommittee on Health and Scientific Research focused on what some senators, led by Chairman Edward M. Kennedy, saw as a growing and very serious public health problem.

Valium® and its relatives provide significant relief of anxiety for millions of people; it is clear from the results reported in this monograph that they are remarkably nontoxic by comparison with the barbiturates and the even more common drugs of dependence, alcohol, and tobacco. During the past four years specific brain receptors for benzodiazepines have been discovered, suggesting that the brain produces an antianxiety or hypnotic agent structurally similar to Valium®. Pharmaceutical companies are developing newer and more potent benzodiazepines as each seeks a share in a huge market.

These various factors led NIDA to have the whole area reviewed by experts; each expert produced a state-of-the-art paper and then the group met in a review meeting to exchange ideas and decide on needs for further research. Some of the conclusions were that the potential for physical dependence exists, especially in persons with unstable personalities; but the risk is low, certainly less than with other sedatives and hypnotics. The risk factor and dangers to society are of such a low order that no extension of controls is necessary. The volume concludes with a list of basic and clinical studies that might provide much-needed information in this very important field.

A. Arthur Sugerman, M.D.

Behavioral Pharmacology of Human Drug Dependence

National Institute on Drug Abuse, Department of Health and Human Services. Washington, DC, 1981. Pp 289. Illustrated.

Behavioral pharmacology very simply may be defined as the study of the relationships between behavior and drugs. It is a field that has expanded greatly over the past few decades as the means of measuring behavior developed in the animal laboratory, in particular through the use of classical and operant conditioning, and applied to human behavior. Techniques by which animals could administer drugs to themselves, first intravenously and, more recently, orally, especially have been important in the study of drug dependence. The abuse potential of many drugs may be predicted by these techniques.

This volume is a review of research on the behavioral mechanisms involved in the use and abuse of drugs. It emphasizes human use and claims to provide a link between the "neatly arrayed drug use paradigms of the animal laboratory and those governing street drug use."

A few chapters are readable by physicians with an interest in clinical pharmacology. Joseph V. Brady, a pioneer in the field, writes on common mechanisms in substance abuse. Louis Lasagna, as always, deals very clearly with the subject of a rapprochement between clinical and behavioral pharmacology. Henningfield, Griffiths, and Jasinski show remarkable parallels between human dependence on tobacco and opiates. However, the book as a whole will be comprehensible only to drug-dependence researchers with special interest in the techniques of operant conditioning.

A. Arthur Sugerman, M.D.

Harper's Review of Biochemistry

D. W. Martin, P. A. Mayes, V. W. Rodwell. Los Altos, CA, Lange Medical Publications, 1981. Pp 614. Illustrated. (\$18.00)

Harper's Review of Biochemistry, formerly entitled Review of Physiological Chemistry, is the 18th edition of a series initiated in 1939 and revised every two years. This long history has permitted the evolution of a content that relatively is comprehensive with a readable format, including the generous use of illustrations. While the current edition is shorter than its predecessors, the text suffers because it is encyclopedic in its approach and discouraging for the reader who wishes an overview of a topic. Overall, however, Harper's Review of Biochemistry strikes a reasonable balance between being a complete text and a succinct review. Its presentation is clear and up to date, particularly in those areas of biochemistry that are developing rapidly.

> Richard A. Harvey, Ph.D. Department of Biochemistry UMD-Rutgers Medical School

Managing Ob/Gyn Emergencies

John T. Queenan, M.D. (editor). Oradell, NJ, Medical Economics, 1981. Pp 168, Illustrated. (\$15.95)

Managing Ob/Gyn Emergencies was prepared as an adaptation from a special issue of Contemporary Ob/Gyn, one of the most popular and most read magazines of the specialty.

This book covers a variety of ob/gyn emergencies prepared by numerous contributors. In general, the different conditions reviewed are covered in a succinct, straightforward, and easy-to-comprehend manner. The approach to management is practical and is not esoteric for the practicing physician.

Unfortunately, the title of the book, Managing Ob/Gyn Emergencies, is misleading to the reader because it implies that the entire core of ob/gyn emergencies are covered. I feel a different title, implying that only frequent emergencies are covered, would have been more appropriate.

Another minor criticism is the shape of the book—9" x 6". Although interesting, the book is quite impractical as an easy-to-carry handbook.

In conclusion, despite minor criticisms, I have found the book to be an excellent and useful aid to the standard reference texts dealing with ob/gyn emergencies. I highly recommend it.

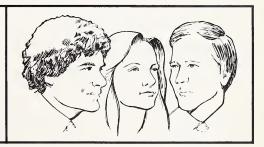
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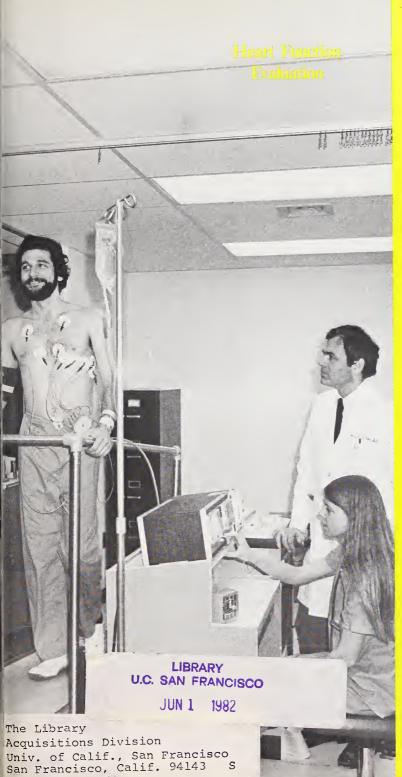
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Table of Contents on Page 360



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CONTENTS

367 PROFESSIONAL LIABILITY COMMENTARY

EDITORIALS

- 373 Rudolph C. Gering, M.D.: 1930-1982
- 373 New Jersey Hospital Care Study
- 375 Book Review Editor Named

377 LIFELINE PROGRAM

ARTICLES

- 383 Historical Perspective of Surgery for Morbid Obesity R. E. Brolin, M.D., K. Kasnetz, R.D., D. P. Greenfield, M.D., Piscataway
- 389 Prenatal Diagnostic Services in a Community Hospital Tillie Young M.S., Caroline Lieber, M.S., Hackensack Franklin Desposito, M.D., Newark

STATE OF THE ART

395 Noninvasive Techniques in Cardiac Diagnosis
Robert M. MacMillan, M.D., and Louis S. Zeiger, M.D., Camden

CACE BERORTO

- 404 Flail Mitral Leaflet: An Echocardiographic Diagnosis
 Shashi K. Agarwal, M.D., and Jacob I. Haft, M.D., Newark
- 409 An Unusual Case of Hypersensitivity Vasculitis Probably Due to Allopurinol D. Falco, M.D., R. A. Daniels, M.D., R. Conklin, D.O., Long Branch

THERAPEUTIC DRUG INFORMATION

413 Benoxaprofen and Cyproheptadine

NUTRITION UPDATE

415 Diet and Coronary Heart Disease Mary Winston, Ed.D., Dallas, TX

WHAT IS YOUR OPINION?

417 You Asked For It
Frank Primich, M.D., West New York

DOCTORS' NOTEBOOK

- 419 Trustees' Minutes: February 21, 1982
- 422 UMD Notes
- 422 MSNJ Auxiliary
- 424 The New UMD
- 426 Physician Study
- 427 McGuire Appointment
- 427 Physicians and Agent Orange
- 427 Hemodialysis Unit
- 428 Public Health
- 428 Physicians Seeking Location in New Jersey
- 432 LETTERS TO THE JOURNAL
- 433 CME CALENDAR
- 436 OBITUARIES



On The Cover: A patient is undergoing the first phase of a thallium treadmill stress test. The entire test and other noninvasive techniques in heart function evaluation are reported beginning on page 395. The cover photograph was taken by Joseph T. Rothrock, Medical Photographer at Cooper Medical Center, Camden.

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80 ma

25 mg

WARNING: This fixed combination drug is not indicated for initial therapy of hypertension. Hypertension requires therapy titrated to the individual patient. If the fixed combination is the fixed combination of the fixed c nation represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension is not static, but must be reevaluated as

DESCRIPTION: INDERIDE combines two antihypertensive agents: INDERAL (propranolol hydrochloride), a beta-adrenergic blocking agent, and hydrochlorothiazide, a thiazide

INDICATION: INDERIDE is indicated in the management of hypertension. (See boxed warn-INDICATION: INDERIDE is indicated in the management of hypertension. (See boxed warning.)

CONTRAINDICATIONS: Propranolol hydrochloride (INDERAL*): Propranolol hydrochloride is contrandicated in: 1) bronchial ashtma, 2) allerigo thinitis during the pollen season;
3) sinus bradycardia and greater than first degree block. 4) cardiogenic shock, 5) right ventroular failure sees condary to pulmonary hypertension, 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythma treatable with propranoloj, 7) in patients on admeragic augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs. Hydrochlorishiazide: Hydrochlorishiazide is contrandicated in patients with anuria or hypersensitivity to this or other sullonamide-derived drugs.

WARNINGS: Propranolol hydrochloride (INDERAL*): CARDIAC FAILURE Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta blockade always carries the potential hazard of thrither depressing myocardial contractitity and precipitating cardiac failure. Propranolol acts selectively without abolishing the inotropic action of digitation on the heart muscle (e. in that of supporting the

myocardial contractility and precipitating cardiac failure. Propranolol acts selectively with out aboilshing the inotropic action of digitalis on the heart muscle (e. that of supporting the strength of myocardial contractions). In patients already receiving digitalis, the positive inotropic action of digitalis may be reduced by propranolols negative inotropic effect freelects of propranolol and digitalis are additive in depressing AV conduction. In PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure. In rare instances, this has been observed during propranolol therapy Therefore, at the first sign or symptom of impending cardiac failure, patients should be fully digitalized and/or given a divertic, and the response observed closely a) if cardiac failure continues, despite adequate digitalization and diuretic therapy, propranolol therapy should be immediately withdrawn, b) if tachyartrythma is being controlled, patients should be maintained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of propriation therapy. Therefore, when discontinuance of propriation is planned the dosage should be gradually reduced and the patient carefully monotined in addition, when propriation is prescribed for angina pections, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If propriation therapy is interrupted and exacerbation of angina occurs, it usually is advisable to rensitiute propriation of the p be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given propranolol for other indications

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use IN PATIENTS WITH THYROTOXICOSIS, possible deleterous effects from long-term use have not been adequately appraised. Special consideration should be given to propranolo's potential for aggravating congestive heart failure. Propranolol may mask the clinical signs of developing or continuing hyperthyroidsm or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidsm, including hypod storm. This is another reason for withdrawing propranolol slowly Propranolol does not distort hypod function lests. IN PATIENTS WITH WOLFF-PARKINSON WHITE SYNDPROME, several cases have been reported in which, after propranolol. The facility acids was replaced by a severe bradycatidal engagement of the propranolol several propranolol distorment of the p

reguiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg pro-pranolol.

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of pheochromocytoms, propranolol should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emer-gency surgery, since propranolol is a competitive inhibitor of beta-receptor agonists, its ef-lects can be reversed by administration of such agents e.g. isoppretereol or levarterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in re-starting and maintaining the heart beat has also been reported. IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-CHITCS EMPLYSEM), prographol should be administered with caution since it may higher.

CHITIS, EMPHYSEMA), propranoiol should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of

bronchodiation produced by endogenous and exogenous categorismine stimulation of beta receptors. DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its beta-adrenergic blocking activity, propranolol may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of actue hypoglycemia. This is especially important to keep in mind in patients with labile diabeties. Hypoglycemic attacks may be ac-companied by a precipious elevation of blood pressure.

tients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or

progressive liver disease, since minor alterations of fluid and electrolyte balance may pre-cipitate hepatic coma Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation

occurs with ganglionic or peripheral adrenergic blocking drugs Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma. The possibility of exacerbation or activation of systemic lugus erythematosus has been re-

ported.

WEE IN PREGNANCY: Propranolol hydrochloride (INDERAL*): The safe use of pro-pranolol in human pregnancy has not been established. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or fetus be women of childbearing potential requires that the possible risk to mother and/or fetus be weighed against the expected therapeutic benefit. Embryotoxic effects have been seen in animal studies at doses about 10 times the maximum recommended human dose Hydrochlorothiazide: Thiazdes cross the placental barrier and appear in cord blood. The use of thiazdes in pregnant women requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocy-topenia, and possibly other adverse reactions which have occurred in the adult. Nursing Mothers. Thiazdes appear in breast milk. If the use of the drug is deemed essen-tial, the patient should stop nursing.

tial, the patient should stop nursing PRECAUTIONS: Progranolo Inydrochloride (INDERAL*): Patients receiving catechol-amine-depleting drugs such as reserpine should be closely observed if proprianoloi is ad-ministered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharma-cologic activity of progranoloi may produce hypotension and/or marked bradycardia result-ing in vertigo, syrcopia attacks, or orthostatic hypotension served at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function.

Hydrochlorothlazide: Periodic determination of serum electrolytes to detect possible

electrolyte imbalance should be performed at appropriate intervals.

All patients receiving this acide therapy should be observed for clinical signs of fluid or electrolyte imbalance, anemy hypochatema, hypocholermic alkalosis, and hypokalems. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitals may also in fluence serum electrolytes. Warning signs, irrespective of cause are dryness of mouth furst, weakness, lethargy drowsiness, restlessness, muscle pains or cramps, muscular laterals. tigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nause:

tique, hypotension, oligiuna, tachycardia, and gastrointestinal disturbances such as nause, and multimate develop, especially with brisk diuriess, when severe cirrhosis is present to during concomitant use of corticosteroids or ACTH interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the hear to the toxic effects of digitalistic graincreased ventricular irritability. Hypokalemia may be avoided or treated by use of potassium supplements such as foods with a high potassium content. Any choinde deflicit is generally mild, and usually does not require specific treatment except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in his weather: appropriate therapy is water restriction, taffer than administration of sait, except in rare instances when the hyponatremia ille-threatening in actual sait depletion, appropriate placement is the therapy of choice Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving this desired.

thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged Diabetes mellitus which has been latent may become manifest during thiazide administra-

Thiazide drugs may increase the responsiveness to tubocurarine

The anthypertensive effects of the drug may be enhanced in the postsympathectomy patient. This amount and decrease arterial responsiveness to norepinephnine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal impairment becomes evident, consider withholding or discontinuing

If progressive renal impairment oecomes evident, consider winnoiding or discontinuing dirutetic therapy. This progressive the parathyroid disturbance. Calcium excretion is decreased by this ardies Pathologic changes in the parathyroid gland with hypercalcema and hypophosphatema have been observed in a few patients or prolonged this ardied therapy. The common complications of hyperparathyroidism such as renal lithiasis, bone resorption, and peptic ulceration, have not been seen. This ardies should

nal Ithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazdes should be discontinued before carrying out tests for parathyroid function.

ADVERSE REACTIONS: Propranofol hydrochloride (INDERAL*): Cardiovascular, bradycarda, congestive heart failure, intensitication of AV block, hypotension; paresthesia of hands, antenal insufficiency, usually of the Raynaud type, thrombocytopenic purpura. Central Nevucus System lightneadedness, mental depression manifested by insomina, assitude, weakness, latique, eleverable mental depression programsing to cataloxia, visual assitude, weakness, latique, eleverable mental depression programsing to cataloxia, visual for time and place, short term memory loss, emotional lability, slightly, clouded sensorium, and decreased performance on neuropsychometrics.

Gastroniestral nausea, vomiting, epipastric distress, abdominal cramping, darribe

and decreased performance on neuropsychometrics. Gastrontestrain rausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesentence arterial thrombosis, ischemic colitis. Allergic, pharyngitis and agranulocytosis, erythematous rash, fever combined with achin and sore thotal, laryngiospasm and respiratory distress. Hespiratory bronchospasm Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpu Miscellaneous reversible alopecia. Oculomucoculaneous reactions involving the skin,

Misscelaneous reversible appetia. Oculomucoculaneous feactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practicol) have not been conclusively associated with programolol. Clinical Laboratory fest Findings. Elevated blood urea levels in patients with severe hear disease, elevated serum transaminase, a lakiline phosphatase, tractar dehydrogenase Hydrochlorothiazide: Gastrointestinal anorexia, gastric mitation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis sialadenitis

aladeniis Central Nervous System dizziness, vertigo, paresthesias, headache, xanthopsia Hematologic Teukopena, agrandiocytosis, thrombocytopenia, aplastic anemia Cardiovascular orthostatic hypotension (may be aggravated by alcohol, barbiturates, or

Carlovascular uniosaric rypoterissor (may be aggravated by accions barbutales, or nacrotics)
Hypersensitivity purpura photosensitivity, rash urticaria necrotizing anginis (vasculitis)
Cutaneous vasculitis), lever respiratory distress including pneumonitis anaphylactic read
Other hyperglycemia, glycosuria, hyperuncemia, muscle spasm, weakness, restlessness, transient burred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduce withdrawn

DOSAGE AND ADMINISTRATION: The dosage must be determined by individual titration (see boxed warning)

(see boxed warning)
Hydrochlorothazide is usually given at a dose of 50 to 100 mg per day. The initial dose of
propranolol is 40 mg twice daily and it may be increased gradually until optimum blood
pressure control is achieved The usual effective dose is 160 to 480 mg per day.
One to two INDERIDE tablets twice daily can be used to administer up to 320 mg of propranolol and 100 mg of hydrochlorothazade For doses of propranolol greater than 320 mg
the combination products are not appropriate because their use would lead to an excessiv

dose of the thiazide component
When necessary, another antihypertensive agent may be added gradually beginning wit
50 percent of the usual recommended starting dose to avoid an excessive fall in blood

OVERDOSAGE OR EXAGGERATED RESPONSE: The propranoiol hydrochloride (INDERAL) component may cause bradycardia, cardiac failure, hypotension, or broncho-

spasm. The hydrochlorothiazide component can be expected to cause diuresis. Lethargy of varing degree may appear and may progress to coma within a few hours, with minimal depression of respiration and cardiovascular function, and in the absence of significant serum electrolyte changes or dehydration. The mechanism of central nervous system depression with hiazide overdosage is unknown. Gastrontestinal irritation and hypermothity can occur temporary elevation of BUN has been reported, and serum electrolyte changes could occurrence for a national system of the control of

temporary elevation of BUN has been reported, and serum electrolyte changes could occue specially in plaients with impairment of trenal function.

TREATMENT: The following measures should be employed. GENERAL.—If ingestion is, or may have been recent; evacuate gastric contents taking care to prevent purimonary aspite tion. BRADYCARDIA.—Administer atropine (0.25 to 1.0 mg). If there is no response to vaga blockade, administer isoproterenol cautiously. CARDIAC FALURE—Digitalization and divuretics. HYPOTENSION.—Vasopressors, e.g., levarterenol or epinephrine. BRONCHO-SPASM.—Administer isoproterenol and aminophyline. STUPOR OR COMA.—Administer supportive therapy as clinically warranted. GASTROINTESTINAL EFFECTS.—Though usually of short duration, these may require symptomatic treatment. ABNORMALITIES IN BUN. AND/OR SERUM ELECTROLYTES—Monitor serum electrolyte levels and renal function, in strutus europortive measures as required individually to maintain hydration, electrolyte balance, respiration, and cardiovasculiar-renal function.

HOW SUPPLIED: No. 474—Each INDRERIDE "-40/25 tablet contains 40 mg propranolol hydrochioride (INDERAL*) and 25 mg hydrochlorotinazide, in bottles of 100 and 1,000. Also unit dose package of 100.

drochloride (INDERIAL 7 and 20 mg, not contains 80 mg propranolol hydrochloride not 476 — Each INDERIDE* 80/25 tablet contains 80 mg propranolol hydrochloride (INDERIAL*) and 25 mg hydrochlorothiazide, in bottles of 100 and 1,000. Also in unit dose package of 100

References: 1 Veterans Administration Cooperative Study Group on Anthypertensive Agents J A M A 237 2303 (May 23) 1977 2 Bravo, E L. Tarazi, R.C., and Dustan, H P. N Engl J Med 292 66 (Jan 9) 1975 3 Hollifield, J W. and Staton, P.E. Acta Med Scand (Suppl.) 647 67, 1981 4 Holland, O B. Nixon, J V. and Kuhnert, L.: Am. J. Med. 70 762



366

Featuring: The 3 R's of Malpractice Prevention

MALPRACTICE PREVENTION

The Department of Liability Control of the Medical Society of New Jersey sponsored a medicolegal seminar, "The 3 R's of Medical Malpractice Prevention," on February 23, 1982, at Greater Paterson General Hospital. Madelyn S. Quattrone, J.D., an associate of the law firm of James E. George, M.D., J.D., told the members of the medical staff that physicians who maintain good rapport with patients, record meticulously, and act as any reasonable physician would under similar circumstances are less likely to become targets of medical malpractice suits.

Quattrone emphasized that physicians who maintain welldocumented medical records have a great advantage in the event that they are sued. "Well-kept medical records are essential to the practice of good medicine and to the proving

of it," she noted.

"Maintaining an open line of communication between the physician and the patient is essential to the development of good rapport," continued Quattrone. A patient who feels he or she has been able to talk with a doctor is less likely to raise allegations of lack of informed consent. Quattrone stated, "At the heart of informed consent are two human beings sharing what one knows and the other does not know. Ask the patient what he or she wants to know about the illness and proposed treatment. Full informed consent takes place when the physician tells the patient the material risks and benefits of the proposed therapy, the risks and benefits of alternative methods of treatment, and the prognosis if no treatment at all is rendered."

"In appropriate circumstances, physicians may invoke the doctrine of therapeutic privilege to withhold information that the physician in good faith medical judgment believes may cause the patient to suffer such undue apprehension and anxiety that a successful outcome may be jeopardized," Quattrone noted. "However," she added, "a prudent physician will discuss these risks with another member of the patient's family and will document this discussion on the medical records."

"The difficulty with informed consent primarily is in its proof. Recent changes in JCAH standards for medical records now require physicians to document evidence of informed consent in the medical record." (Medical Record Services, Standard II, Interpretation, of the Accreditation Manual for Hospitals, JACH, 1982) The record reads: "A policy on informed consent be developed by the medical staff and governing body and shall be consistent with any legal requirements. The medical record shall contain evidence of informed consent for procedures and treatments for which it is required by the policy."

Quattrone cautioned, "Another acceptable and customary method of documentation is the use of informed consent forms signed by the patient. While this method may be preferred by some defense attorneys because it provides some tangible evidence of consent, it is not to be used as a substitute for a full discussion with the patient."

GENEST URGES PHYSICIAN-OWNED COMPANIES TO LOOK INWARD**

The Medical Inter-Insurance Exchange of New Jersey began to underwrite professional liability insurance on an occurrence basis in February, 1977.

MIIENJ was formed as a reciprocal insurance company. Policyholders and each policy year must stand alone. If profits are incurred, they are returned to the policyholders of the year in which the profit is made. If a loss occurs, the deficit is made up from the company's surplus.

Currently, the Exchange insures 6,000 physicians out of a possible insurable population of 9,000 physicians. The major competition is a state-legislated joint underwriting association.

If you were a Class I physician (family practitioner or general practitioner) insured by MIIENJ in 1977, you would be paying 24.5 percent less for your premium in 1982 than you did in 1977. If you were a general surgeon insured with MIIENJ in 1977, you would be paying 9.6 percent less than you paid in 1977. If you were a Class III (family practitioner, general practitioner major surgery), you would be paying 7.9 percent less than you paid in 1977. The worst case would be an obstetrician insured with MIIENJ in 1977. He or she would pay 3.1 percent more than they did in 1977. That is about 7 of 1 percent per year increase!

The reason for these results is that the current 15 percent rate increase for 1982 policy year will be more than offset by prior premium reductions and the first declared dividend of \$5,000,000—a 20 percent return of 1977 premium to 1977 policyholders.

MIIENJ is enjoying these results and expects a bright outlook for the future because:

- Medical Inter-Insurance Exchange of New Jersey adopted the rates of the prior carrier during its first year of operation, and it turned out that they were inflated significantly
- Medical Inter-Insurance Exchange required a heavy capitalization with a goal of \$1 of surplus to \$2 of written premium so that today it enjoys a very substantial cushion in excess of \$20,000,000 in surplus.
 - MIIENJ investment income has been adequate.
- Medical Inter-Insurance Exchange decided not to waste money on commissions for agents or brokers and, therefore, became a direct writer of insurance.

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department and Assistant Director and Editor.

^{**}This a copy of a talk presented by Bernard H. Genest, Vice President Claims of MHENJ, at the December, 1981, meeting of the AMA Forum on Medical Affairs. Some of the statistics have been changed to reflect changes that occurred after this speech was delivered.

• MHENJ decided not to farm out their claims administration to independent adjusters or to other independent profit-motivated agencies that would service their insurance needs. They developed their own in-house organization. These last two steps alone saved \$.10 to \$.15 on each premium dollar collected. The point here is that the professional liability premium dollar is too scarce to share with other nonessential profit-motivated institutions.

All of these decisions were important initially, but they are not the cause of optimism for the future. That optimism rests with some fundamental adjustments in the physician's philosophy and attitude toward insurance and malpractice.

Insurance in not a crusade. It is a business!

The purpose of the business of insurance is to pay losses by spreading the risk.

The contractual relationship includes two promises: to pay damages and to defend. We do not interpret the contract to mean that we are to spend millions of dollars building contrived defenses for indefensible cases. We interpret the contract to mean that we have as much of an obligation to our insureds to pay damages—when due—as we do to defend cases. These obligations are equal.

Medical malpractice is a medical problem. It is not a legal problem.

The absence of medical malpractice and the presence of a claim or suit alleging malpractice is the legal problem.

If we accept these last two items—and MIIENJ does—then there must be a division of labor in the administration of claims. The claims department, in cooperation with its insureds through the mechanism of peer review, has the duty to identify, isolate, and dispose of the medical problems, the misadventures, before they are allowed to enter into costly and protracted litigation. Defense counsel is reserved under careful supervision for those cases that represent legal problems.

In order to allow this division of labor to occur, you must staff your claim department heavily and with qualified people. MIIENJ has set a caseload of 50 per claimsperson. Without this staff, by default, you lose control of your claims to defense counsel. May I remind you that defense counsel is paid by the hour? If your backlog of cases becomes uncontrollable, you do not know if you are coming or going. MIIENJ closed more claims than were opened! (Out of 3,006) reported, MIIENJ closed 1,527.) In order that defense counsel would not attempt to subvert our system but would give it their full cooperation, we were forced to abandon most of the old-line blue blood firms for younger, more progressive, and more aggressive attorneys. This meant that we actually had to encourage the formation of new law firms. It may interest you to know that defense counsel takes as much of your premium dollar for his fee as plaintiffs' attorneys receive for their much-maligned contingency fees. The only difference is that while defense counsel virtually is guaranteed his money, plaintiff counsel must take a risk. They both play golf together.

We decided that a good part of the adversary system is something of a contrived battle arranged for the economic advantage of the American Bar Association. Therefore, we decided to try and defuse the situation as best we could. We sat down with ATLA (American Trial Lawyer's Association) and said to them: let's find out if we have anything to argue about—this agreement was committed to writing. So far, we have agreed on at least one-third of our cases that, indeed, we don't have anything to argue about. The effect has been a decrease in defense legal fees to \$.02 on the dollar of

indemnity paid. That is, on the \$26,469,759 paid in indemnity through November 30, 1981, our legal fees and associated allocated loss adjustment expenses came to only \$668,491. The last national figures for cases closed in 1978 published by the NAIC (National Association of Insurance Commissioners) was \$.18 on the dollar. Of course, that would be much higher today.

We know that the passage of time has a very significant and adverse effect on the settlement value of a case. Therefore, we have managed to settle our cases closed with indemnity paid on the average of 9.63 months from the date reported. (The 1978 NAIC study indicated 27 months was the national average.) The desired goal of actually maintaining or decreasing the average paid indemnity through the mechanism of early settlement seems to be working. Although another two years is needed to prove the theory, we can say that in New Jersey (Medical Inter-Insurance Exchange), there is no evidence of an increase in severity of loss. Incidentally, the investment income gained by holding onto your reserves does not exceed the rate of inflation on malpractice settlements. So if you run your company on the investment income theory, you are playing a fool's game!

The battle for the premium dollar does not take place at trial! In spite of the publicity awarded large verdicts, the verdict dollar represents a very small portion of the loss dollar (in our case 3.5 percent). If you are letting defense counsel convince you otherwise, you are being taken for an expensive ride. Incidentally, you do not get your best settlement on the courthouse steps, if that is what your defense is telling you.

Loss prevention was not given a high priority in New Jersey. We felt that the detailed information needed to get at the preventable causes of loss was missing. So while concentrating efforts on the loss control program, MIIENJ concurrently developed a computer system for the collection of loss data that one day would serve as the core of a loss prevention program. A year from now, MIIENJ should be hearing about the first results of this program.

What MIIENJ has done is to wring out the millions of dollars of waste in the insurance mechanism. It has bought MIIENJ valuable time but as Dr. Todd, Chairman of the Board, consistently reminds people, MIIENJ can only wring out so many millions of dollars of waste out of the system and can only buy so much time. All the negative forces that were at work still are at work, and are probably getting worse!

What I suggest to you, doctors, is that while you work on legislative relief and some miraculous loss prevention program, you buy yourselves some time. Look inward!

DID YOU KNOW

... An Illinois court recently allowed for the costs of rearing a healthly child born as a result of a negligently performed sterilization? Nationally, jurisdictions continue to split regarding recoverability of the costs of raising a normal child. (Personal Injury Newsletter, February, 1982)

... In a New Jersey case of an ineffective sterilization resulting in a normal but unwanted child, the court ruled that costs for raising the child were not recoverable? The mother was entitled to recover for pain, suffering, delivery, and income lost during such a period. The father was allowed to recover for loss of consortium and medical expenses. (Health Care Law Digest, January, 1982)

An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Cector* (cefactor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

ambidics. Warnings in Pedicillan-Sensitive Parlents. CEPHALOSPORN ARTHROTICS SHOULD BE ADMINISTERIO CEPHALOSPORN ARTHROTICS SHOULD BE ADMINISTERIO CEPHALOSPORN ARTHROTICS AND CHARLES AND

form of allergy, particularly to origis, Precautions: If an allergic reaction to celador occurs, the drug should be discontinued, and, if necessary, the great should be discontinued, and, if necessary, the pressor amines, authorisamiens, or contropersors, Protonged use of celador may result in the overgrowth of nonsusceptible organisms. Carrelul observation of the patient is essential. If superinlection occurs during therapy, appropriate measures should

over the control of t

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*-are sensitive to treatment with Ceclor.1-6

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. Influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.7



(Insused) Many authorities attribute acute infectious exacerbation of chronic bronchitis to either S perumoniae of the influenze. *Note: Ecclor' (cetaclor) is contraindicated in patients with known allegery to the cephaloporens and should with known allegery to the cephaloporens and should permitted the susual drug of choice in the treatment and prevention of streptococcal infections, including the prophytaxs of rheumatic fever. See prescribing information.

Reterences

Antimicrob. Agents Chemother., 8:91, 1975.
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 Benett), a 477. New 10rt. John Wiley & Sons, 1979



the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285 Eli Lilly Industries, Inc. Carolina Puerto Rico 00630

ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION:

INSOMNIA

Others to look for:

agitation

anorexia

feelings of guilt and worthlessness

fatique

palpitations

headache

vague aches and pains

sadness

psychic and

somatic anxiety

Artist's canception, looking out from the human eye as conceived in a schematic model.

LIMBITROLGIVEN H.S.: ONE OF THE VITAL SPECIFICS OF TREATMENT

Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include ancrexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vague aches and pains.

Limbitrol given once daily h.s. may be the best approach

Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol®

Tablets 5-12.5 each cantaining 5 mg chlordiozepoxide and 12.5 mg omitriptyline (os the hydrochloride salt)

Tablets 10-25 each cantaining 10 mg chlardiazepaxide ond 25 mg omitriplyline (as the hydrochloride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant Before prescribing, please consult complete product information, o summory of which follows:

Indications: Relief of moderate to severe depression associated with moderate

to severe anxiety

Contraindications: Known hypersensitivity to benzodiozepines or tricyclic antidepressoris. Do not use with monomine oxidose (MAO) inhibitors of within 14 days following discontinuotion of MAO inhibitors since hyperpyretic crises, severe convulsions and deoths have occurred with concomitant use, then initiate coutrously, groduolly increasing dosage until optimol response is achieved. Contraindicated during acute recovery phase following myocordiol.

Wornings: Use with great care in potients with history of urinory retention or onale-closure gloucoma. Severe constitution may occur in potients taking tricyclic antidepressonts and onticholinergic-type drugs. Closely supervise cordiovoscular patients (Arrhythmias, sinus tochycordia and prolongotion of conduction time reported with use of tricyclic antidepressonts, especially high doses. Myocardiol infarction and stroke reported with use of this closs of drugs) Coution potients about possible combined effects with olcohol and

drugs.) Coulion potients about possible combined effects with octonio and other CNS depressants and ogainst hazardous occupations requiring complete mental olertness (e.g., operating machinery, driving).

**Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be availed because of increased risk of congenitol molformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise potients to discuss therapy it they intend to or do become pregnant.

Since physicol and psychological dependence to chlordiozepoxide have been reported rorely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrowal symptoms following discontinuation of either component olone hove been reported (nausea, headache and moloise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrowol for chlordiozepoxide) Precoutions: Use with caution in patients with a history of seizures, in hyperthyroid potients or those on thyroid medication, and in patients with imported renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit eosy occess to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged freotment. Amitriphyline component may block action of quonethidine or similar onthypertensives. Concomitant use with other guonelhidine or similor onlitryperiensives. Concomitorit use with other psychofropic drugs hos not been evaluated sedative effects may be odditive biscontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Wornings for precoutions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude atoxia, oversedation, confusion or onlicholinergic effects. Adverse Reactions: Most frequently reported ore those associated with either component alone drowsiness, dry mouth, constipotion, blurred vision driziness and blooting. Less frequently occurring reactions include vivid dreams, impotence, fremor confusion and nasal congestion. Many depressive symptoms including anorexia, folique, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amtirphyline. Gronulocytopenia, jaundice and hepatic dysfunction have been observed rorely

The following list includes odverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both

components or closely reloted drugs.

Cordiovosculor: Hypotension, hypertension, tachycardia, palpitations, myocardiol inforction, orrhythmias, heart block, stroke

Psychiotric: Euphorio, apprehension, poor concentration, delusions, halluci-notions, hypomania and increased or decreosed libido

Neurologic Incoordination, atoxio, numbness, fingling and paresthesias of the extremities, extropyromidol symptoms, syncope, chonges in EEG potterns Anticholinergic Disturbonce of occommodation, porolytic ileus, urinory retention, dilatotion of urinory tract

Allergic: Skin rash, urticaria, photosensitization, edemo of foce and tongue,

Pruritus

Hematologic: Bone marrow depression including agranulocytosis,
eosinophillo, purpura, thrombocytopenio.

Gostrointestinoi. Nouseo, epigostric distress, vomiting, onorexio, stomatifis, peculiar taste, diarrheo, block tongue

Endocrine Testicular swelling and gynecomastia in the male, breost

enlorgement, galactorrhea and minor menstrual irregularities in the femole

ond elevotion and lowering of blood sugar levels

Other Headache, weight gain or loss, increased perspiration, urinary frequency, mydriosis, joundice, olopecio, portoid swelling

Overdosage: Immediately hospitalize potient suspected of hoving taken on overdose. Treatment is symptomatic and supportive 1V administration of 1 to 3 mg physostigmine salicytate has been reported to reverse the symptoms of omitriptyline poisoning. See complete product information for manifestation

and treatment Dosoge: Individualize according to symptom severity and potient response Bosoge: individualize according to symptom severity one potent response Reduce to smallest effective dosage when solistactory response is obtoined Lorger portion of doily dose may be token of bedtime Single h.s. dose may suffice for some potients. Lower dosages ore recommended for the elderly Limbitrol 10-25, initial dosage of three to four foblets daily in divided doses,

increosed to six toblets or decreased to two toblets doily os required.

Limbifrol 5-12 5, initial dosoge of three to four tablets doily in divided doses, for potients who do not tolerate higher doses

powers who do no loverale ingree doses.

New Supplied: White, tim-cooled tablets, each containing 10 mg chlor-diazepoxide and 25 mg amitriptyline (as the hydrochloride solt) and blue, tim-cooled tablets, each containing 5 mg chloridizepoxide and 12.5 mg amitriptyline (as the hydrochloride solt)—bottles of 100 and 500, Tel-E-Dose*pockages of 100, avoidable in troys of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Poks of 50



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Rudolph C. Gering, M.D.: 1930-1982

Too young to die was the consensus of his friends and colleagues who lingered a moment outside the St. Peter Lutheran Church, in Harbourton, following the funeral services for Rudolph Gering, Treasurer of the Medical Society of New Jersey. Dr. Gering died suddenly on March 22, 1982, at Mercer Medical Center in Trenton, the hospital where he practiced for two decades. Death resulted from an acute myocardial infarction.

I knew Rudolph Gering as a medical colleague, as an active participant in the affairs of the Mercer County Medical Society, as an officer of the Medical Society of New Jersey, and as a professional friend. Through my contacts, I recognized that Rudy was kind, courteous, compassionate, even-tempered, attentive, and concerned with the well-being of his patients. At the same time, he was an organization man, who was proud of being a physician and who accepted the extended responsibilities of that calling to the community and to the state.

A lifelong resident of the Trenton area, Rudolph Gering was born in Trenton in 1930 and was educated at Rutgers University (B.S.) and at Northwestern University (M.D.). He served a rotating internship at Mercer Medical Center from 1958 to 1959 and practiced family medicine in Trenton from 1960 to 1978 and then moved his practice to Pennington.

Rudy served organized medicine in many ways. He was on numerous committees and held the office of President of our Mercer County component. He was a member of the American Medical Association and was Treasurer of MSNJ from November, 1975, until his untimely death. Dr. Gering was a member of the American Academy of Family Physicians and a Diplomate of the American Board of Family Practice.

Rudy Gering was a family man who enjoyed private moments with his wife, Joan, an active member of our Auxiliary, and with his children, Lawrence, David, and Maria. He smiled easily and was sensitive to the feelings of others.

I observed Dr. Gering at numerous meetings of the MSNJ Board of Directors and at Mercer Medical Center medical staff meetings. He thought deeply, spoke sparingly, and took his responsibilities seriously.

His family, friends, patients, and medical colleagues will miss Rudy. The Medical Society of New Jersey has lost a fine officer, but his community has lost a devoted physician.

On behalf of the Medical Society of New Jersey, we offer Mrs. Gering and the family our deepest sympathy.

Why did Rudy Gering die at such a young age?

"God's finger touched him, and he slept."—Alfred Lord Tennyson. A.K.

New Jersey Hospital Care Study

New Jersey residents recently were polled by the Gallup Organization to determine their attitudes about hospital care. The results should prove interesting to physicians. The study, sponsored by the New Jersey Hospital Association, concerned itself with the following areas:

- · Quality of hospital care
- Hospital costs
- · Community health programs
- · Use of emergency rooms
- · Government regulations

The survey involved a total of 1,825 New Jersey residents; 505 New Jerseyans were hospitalized one or more nights during the past year, 538 residents used outpatient services, and 630 residents used emergency room services.

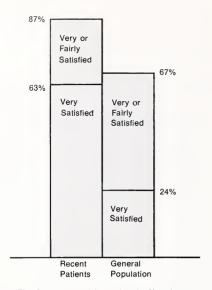
QUALITY OF HOSPITAL CARE

The levels of satisfaction with the quality of hospital care were higher among those who recently had been patients in a hospital, a fact that lends greater support to the overall findings. Among this group, 87 percent were very satisfied or fairly satisfied with hospital inpatient care (see Figure). Likewise, 72 percent of those who had visited an emergency room during the past year reported that they were very or fairly satisfied with the services rendered.

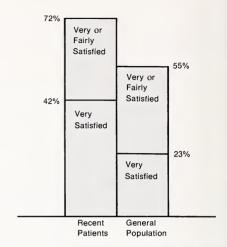
Among outpatients who had used hospital services in the past year, 80 percent were satisified with the experience. The outpatient services used were laboratory and x-ray, as well as physical therapy, surgery, natural childbirth classes, and preventive medicine classes.

Nursing care was given the highest praise by those who reported; overall care and treatment, doctors, competence and friendliness of the hospital staff, and cleanliness also were singled out. Hospital food was praised and condemned.

Among the emergency room patients, 48 percent were treated for automobile or household accidents including fractures. The factors most important to ER patients were quality of care and speed of service; 72 percent reported satisfaction with their emergency room treatment in a New Jersey hospital.



Figure—The Gallup survey shows that the New Jerseyans who are most satisfied with the quality of care available at hospitals



around the state are the ones who recently have been patients in those hospitals.

Other findings among the general population were:

- 67 percent were very or fairly satisfied with the quality of care available in New Jersey hospitals.
- 55 percent were very or fairly satisfied with the quality of care available in hospital emergency rooms.
- care available in hospital emergency rooms.85 percent were very or fairly satisified with the quality
- 62 percent believed their local hospital's quality of care is equal to or better than other New Jersey hospitals.

of care received from their doctors.

• 58 percent of respondents liked the convenience of and would choose their nearby hospital rather than travel to a distant hospital in New Jersey or an out-of-state hospital.

New Jerseyans do not associate quality of service with hospital size. The survey touched on the use of hospital services and learned that 13 percent of the state's residents spent one or more nights in a New Jersey hospital in the past year; 29 percent of the population visted an ER; and 26 percent of the population used a hospital outpatient service.

HOSPITAL COSTS

Whether covered by insurance or not, a total of 74 percent of the population were unsatisfied with the cost of hospital care (50 percent stated they were not at all satisified and 24 percent stated they were not too satisified). A majority of residents, 62 percent, thought quality of care received in more expensive hospitals was about the same as the care in less expensive hospitals. (The words "more" or "less" expensive, of course, do not pertain under the DRG reimbursement system.)

The public is receptive to the idea of preadmission testing (PAT) and same-day surgery. Sixty-six percent preferred PAT to hospitalization a day early for routine tests before surgery.

For minor surgery, half of the people queried preferred the doctor's office, while 33 percent would select a surgical outpatient unit in a hospital for such procedures.

COMMUNITY HEALTH PROGRAMS

New Jerseyans overwhelmingly approved of hospital outreach education, counseling, and disease detection programs. Screening efforts aimed at glaucoma, diabetes, and hypertension were favored by 93 percent of individuals. Classes in such subjects as nutrition, exercise, specific illnesses, first aid, and CPR were acceptable to 77 to 92 percent of the population. Community nursing services (87 percent positive) and counseling for persons with drug or alcohol problems (90 percent positive) were very high on the list.

USE OF EMERGENCY ROOMS

As noted before, 29 percent of New Jersey residents visited an emergency room in the past year, but not always for appropriate reasons. In response to a hypothetical question, 66 percent indicated they would visit their hospital emergency room for out-of-hours injury (even as minor as an injured finger), while only one out of four respondents would go to the ER for a febrile, flu-like illness instead of contacting a personal physician.

GOVERNMENT REGULATIONS

New Jersey residents are fuzzy about the role of government in hospital regulations. As to such regulations in relation to hospital costs, 46 percent knew that costs were subject to regulations, while 56 percent believed government should regulate hospital costs. On the same subject, however,

52 percent believed government regulations increased hospital costs, but at the same time half felt that regulations had no impact or actually reduced the quality of hospital care.

COMMEN1

The results of this study, though not surprising, are valuable and the New Jersey Hospital Association should be congratulated for implementing and publishing the study. NJHA has prepared the material in an attractive brochure for distribution to New Jersey citizens. Also, NJHA has included explanations or comments on each topic to educate the health consumer. NJHA describes cost-saving techniques, the existence of outreach programs, greater details about government regulations, the association's effect on hospital costs, the role of the Joint Commission on Accreditation of Hospitals, the Department of Health, and the Health Care Administration Board.

Each physician should be cognizant of the perceptions of his or her patients and their friends and family about such matters. We can and should followup on a one-to-one basis to clarify some of the misconceptions about hospitals. The use and abuse of emergency rooms often results from our nonavailability; most patients would prefer to be treated in an emergency by their own personal physician. Greater utilization of PAT, same-day surgery, and other outpatient

services depends initially on the physician and should be encouraged.

Those of us who are very active in hospital care must be surprised—almost startled—at the positive responses of the users of hospital care in this day of complaint and criticism. We should set aside our total preoccupation with fever curves, laboratory results, and heart sounds for a moment and take a look at our hospitals through the eyes of our patients. Why not ask them what pleases or displeases them while they are in the hospital? In the final analysis, those factors may determine their memories of a hospital experience and, ultimately, their desire for government regulation and mindless cost control measures.

Each New Jersey physician should obtain a copy of the NJHA brochure and utilize its contents to improve the perception and image of the hospital and its services to patients and their families.* After all, we physicians spend a lot of our working day in the hospital and make use of hospital services. Thus, the hospital is our workplace, almost as much as our private office. Let's improve the image as well as the services of our hospitals.

A.K.

Book Review Editor Named

Norman Riegel, M.D., has been appointed to the Editorial Board of *The Journal* as Book Review Editor. Dr. Riegel brings to this position a keen interest and a professional expertise; as he noted, "I hope to fill the book section with concise reviews to enable *The Journal* readership to spend their limited reading time most effectively. I expect the reviews to be reliable, objective, and critical."

As Book Review Editor, Dr. Riegel combines a love of reading, a longtime favorite pastime, and an alert medical judgment. Dr. Riegel added, "Reading is a favorite and I think the most efficient method of learning. Medical books that thoroughly review, digest, and condense the huge mass of current literature and organize rationally their material, help me to understand, recall, and use what I have learned. And when the author is a good writer, the book can be fun as well as educational."

Born in 1935 in New York City, Dr. Riegel was graduated from Einstein College of Medicine in 1960. He interned at clinics at the University of Chicago and was an Assistant Resident at Kings County Hospital and Bellevue Hospital. From 1963 to 1964, Dr. Riegel was on a GI Fellowship at Bellevue and from 1964 to 1966 he was Chief, Division of Gastroenterology, at the USAF Hospital in Biloxi, Mississippi. Presently, Dr. Riegel is Chief, Gastroenterology, Bergen Pines County Hospital, Paramus.

A member of our Bergen County component, Dr. Riegel is a Fellow of the American College of Gastroenterology, a Diplomate of the American Board of Internal Medicine, and a Fellow of the American College of Physicians.

In his new capacity for *The Journal*, Dr. Riegel welcomes reviewers and critics. He added, "We hope readers will send us reviews of new books they believe the rest of us should know about. Reviews of titles in the new media formats—audio-visual tapes, computer programs, mail-order courses—will be welcomed as well as suggestions and additions for the section."

The Journal welcomes Dr. Riegel and we are assured that his understanding of modern medical literature significantly will enhance our publication.

G.H.

^{*}For a copy of the NJHA report, please write to New Jersey Hospital Association, Communications Department, 746-760 Alexander Road, CN I, Princeton, NJ 08540.

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The Medical Society of New Jersey and Middlesex General Hospital in New Brunswick are recipients of a one-year grant from the Hunterdon Health Foundation to complement the first contracted LIFELINE system in New Jersey. This is the third in a series on the progress of the project during its first year of development.

Middlesex General Hospital now has 24 subscribers assigned to its emergency response system. The Hospital continues to receive daily inquiries regarding the feasibility of the program for potential subscribers.

A large number of the present subscribers' initial inquiries emanated from immediate family members or close friends. These individuals were concerned with the welfare of the subscriber; they receive a sense of consolation knowing that 24-hour emergency assistance is available to someone they hold dear.

In the instances where a family member, son, or daughter, had initated the interest, it was easier for the subscriber to adjust to and accept the emergency response system.

The average age for the 24 subscribers ranges between 75 and 80, the oldest subscriber being 94 years of age; all but two of the subscribers are female. An exception to this age group is a 2 year old who has a difficult seizure disorder (that can result in an arrest) and who is neurologically impaired. Since the child must receive immediate response should an emergency arise, the signal is transmitted automatically to the rescue squad, circumventing the use of any responder.

The first issue of the *LIFELINE* newsletter mentioned that the emergency response system permitted the subscriber to live independently and also could reduce long-term costs of nursing home care.

As a result of Middlesex General Hospital's emergency response system, 3 of the 20 subscribers were able to leave nursing home facilities and return to live a more independent life in their own home.

Remarks included on the emergency response subscriber information cards that are utilized by the hospital's response center in event of an emergency, provide descriptive examples of those who are utilizing the program:

- · Polio since 16 years of age-muscle atrophy.
- Hard of hearing—allows phone to ring a minimum of 10 times
- · Uses a walker.
- Very frail—partially dependent in daily living activities.
- Poor vision—wears a patch on right eye and has an unstable gait.

- · Ambulates slowly with cane.
- Epilepsy-frequent seizures.
- Neurologically impaired—difficult seizure disorders.

All but three of the subscribers live alone and in each of these cases the other resident is not home during the day.

Three summary profiles of subscribers in the Middlesex General Hospital program strongly indicate that the emergency response system successfully provides security and a sense of independence to subscribers:

Mrs. B, a 60 year old, contracted polio at 16 and currently suffers from Lou Gehrig's disease. Mrs. B, initiated the original contact for information regarding the *LIFELINE* program. Mrs. B uses a tea cart or a walker to aid her mobility. An active and outgoing person, Mrs. B. saw the emergency response system as an additional aid to her independence. With her husband away all day, she is secure in the knowledge that should she fall while being alone, help would be available. The pocket-size remote control button with its 200-foot range, provides additional assurance as Mrs. B. walks to her car in the driveway for her weekly driving lessons.

"Profiles of those enrolled indicate that the emergency response system successfully provides security and a sense of independence to subscribers."

Mrs. H., age 74, lives alone in a large, well-kept home and relies on a waiker to move about her residence. She looks upon the emergency response system as having another person in the home.

Mrs. C. is an active 94 year old who lives alone and relies upon a walker to move from place to place. At first Mrs. C. was skeptical regarding the merits of an emergency response system. Through the persistence of the Visiting Nurse Association in Middlesex County and her friends, Mrs. C. came to realize the value of the program and how much others were concerned for her well-being. Today, Mrs. C. has come to accept the emergency response system as an aid to her independence.

Barbara L. Goula, R.N., Director of the Middlesex General Hospital Emergency Response System, has discovered that

some subscribers feel they must be in a life-threatening situation before they activate the system. Ms. Goula relates that in two instances subscribers contacted their children instead of seeking aid through the emergency response system. Both subscribers felt it was not "that great an emergency," and that they "did not want to bother anyone." Ms. Goula recommends a constant reeducation of the subscribers as to when the system should be activated.

"Some subscribers feel they must be in a life-threatening situation before they activate the system."

Throughout this early development of the *LIFELINE* project at Middlesex General Hospital, two factors remain constant: the value and need of an emergency response system, and the excitement and interest that the implementation of such a program generates.

The Medical Society of New Jersey has learned that Perth Amboy General Hospital and Greater Paterson General Hospital have implemented a *LIFELINE* program. These hospitals along with Middlesex General Hospital, New Brunswick, Hamilton Hospital, Trenton, and Riverside Hospital, Boonton, bring the total to five hospitals in New Jersey with a *LIFELINE* program.

IMPORTANT NOTICE

Representatives Margaret Heckler (R-MA) and Claude Pepper (D-FL) have introduced House Bill H.R. 3921 which proposes that Medicare coverage be available for emergency response services for older, disabled, or medically vulnerable persons.

Cosponsors of this bill from New Jersey are: Rep. Millicent Fenwick (R-NJ); Rep. Edwin Forsythe (R-NJ); Rep. Matthew Rinaldo (R-NJ); Rep. Robert A. Roe (D-NJ); Rep. Bernard J. Dwyer (D-NJ); and Rep. Frank Guarini (D-NJ).

Information regarding the *LIFELINE* project at Middlesex General Hospital may be obtained through A. Ronald Rouse, Medical Society of New Jersey, 2 Princess Road, Lawrenceville, 08648, (609) 896-1766.

LIFELINE Newsletter may be printed without permission.

Your Angina patients could fly coast to coast on the long-acting effects of one tablet.

Bioavailability findings* of Oral, Sublingual and Chewable Cardilate® dosage forms in volunteers demonstrated that the Oral (swallowed) 10mg Tablet provided a 6-hour duration of pharmacologic effect; more than 3 times longer than when given sublingually, or as the chewable Tablet. Cardilate Oral Tablets are recommended for the prophylaxis and longterm treatment of patients with frequent or

recurrent anginal pain and reduced exercise tolerance associated with angina pectoris.

*Hannemann, R. E., Erb, R. J., Stoltman, W. P., Bronson, E. C., Williams, E. J., Long, R. A., Hull, J. H. and Starbuck, R. R.: Digital Plethysmography For Assessing Erythrityl Tetranitrate Bioavailability. Clin Pharmacol and Ther 29:35-39, 1981.

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WARNING: Data supporting the use of nitrates during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish salety.

PRECAUTIONS: Intraocular pressure is increased therefore caution is required in administering to patients with glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur.

ADYERSE REACTIONS: Cutaneous vasodilation with flushing. Headache is common and may be severe and persistent. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop. This drug can act as a physiological antagonist to norepinephine, acetylcholine, histamine and many other agents. An occasional individ-

ual exhibits marked sensitivity to the hypotensive effects of nitrates and severe responses (nause vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur even with the use therapeutic dose. Alcohol may enhance this effect. Drug rash and / or extoliative dermatitis may oc-sionally occur.

DOBAGE AND ADMINISTRATION

Oral / Sublingual Tablets: Cardilate (Erythrityl Tetranitrate) may be administered either sublingually orally. Therapy may be initiated with 10 mg. prior to each anticipated physical or emotional stress an bedtime for patients subject to nocturnal attacks. The dose may be increased or decreased as need.

Dedunies us, personal description of the SUPPLIED:
CARDILATE (Erythrityl Tetranitrate) TABLETS (Scored)
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HYPERTENSION:



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Today, INDERAL—instead of methyldopa, instead of reserpine.

INDERAL exhibits few of the disturbing side effects of methyldopa and reserpine. Sedation, depression, and impotence are rare. Tolerance is not likely to occur, as it frequently does with methyldopa. For the vast majority of patients—INDERAL means a step toward improving the quality of life. (INDERAL should not be used in the presence of congestive heart failure, sinus bradycardia, heart block

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Hypertensive hearts can rest easy with INDERAL.

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ERAL (PROPRANOLOL HCI) **B.I.D.**The sooner, the better.



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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR) Inderal® BRAND OF propranolol hydrochloride A beta-adrenergic blocking agent

BEFORE USING INDERAL (PROPRANOLOL HYDROCHLORIDE), THE PHYSICIAN SHOULD BE THOROUGHLY FAMILIAR WITH THE BASIC CONCEPT TO ADRENERGIC RECEPTORS (ALPHA AND BETA), AND THE PHARMACOLOGY OF

CONTRAINDICATIONS

INDERAL is contraindicated in 1) bronchial asthma; 2) allergic rhinitis during the pollen season, 3) sinus bradycardia and greater than first degree block, 4) cardiogenic shock, 5) right ventricular failure secondary to pulmonary hypertension, 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL, 7) in patients on adrenergic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs

WARNINGS

CARDIAC FAILURE. Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta-blockade always carries the potential hazard of further depressing myocardial contractility and precipitating cardiac failure. INDERAL acts selectively without abolishing the inotropic action of digitals on the neart muscle (i.e., that of supporting the streight of myocardial contractions) in patients already receiving digitalis, the positive inotropic action of digitals may be reduced by INDERAL'S negative inotropic effect. The effects of INDERAL and digitalis are additive in depressing AV conduction

IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure. In rare instances, this has been observed during INDERAL therapy. Therefore, at the first sign or symptom of impending cardiac failure, patients should be fully digitalized and/or given a diuretic, and the response observed closely: a) if cardiac failure continues, despite adequate digitalization and diuretic therapy, INDERAL therapy should be immediately withdrawn, b) if tachyarrhythmia is being controlled, patients should be maintained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when INDERAL is prescribed for angina pectoris, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute. INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult. atherosclerotic heart disease, who are given propranolol for other indications

IN PATIENTS WITH THYROTOXICOSIS, possible defeterious effects from long term use have not been adequately appraised. Special consideration should be given to propranolol's potential for aggravating congestive heart failure. Propranolol may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing propranolol slowly Propranolol does not distort thyroid function

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg

IN PATIENTS DURING ANESTHESIA with agents that require catecholamine release for maintenance of adequate cardiac function, beta blockade will impair the desired inotropic effect. Therefore, INDERAL should be titrated carefully when administered for arrhythmias occurring during anesthesia

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of pheochromocytoma, INDERAL should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emer-gency surgery, since INDERAL is a competitive inhibitor of beta receptor agonists, it is effects can be reversed by administration of such agents, e.g., isoproferend or levarterend. However, such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has also been reported

IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON CHITIS, EMPHYSEMA), INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its betaadrenergic blocking activity, INDERAL may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially important to keep in mind in patients with labile diabetes. Hypoglycemic attacks may be ac companied by a precipitous elevation of blood pressure
USE IN PREGNANCY. The safe use of INDERAL in human pregnancy has not been estab-

lished. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or fetus be weighed against the expected therapeutic benefit

Embryotoxic effects have been seen in animal studies at doses about 10 times the maximum recommended human dose PRECAUTIONS

Patients receiving catecholamine depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Occa sionally, the pharmacologic activity of INDERAL may produce hypotension and/or marked bradycardia resulting in vertigo, syncopal attacks, or orthostatic hypotension

As with any new drug given over prolonged periods, laboratory parameters should be observed at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function

ADVERSE REACTIONS

Cardiovascular bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, arterial insufficiency, usually of the Raynaud type, thrombocyto-

Central Nervous System lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances, hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short term memory loss, emotional lability, slightly clouded sensorium. and decreased performance on neuropsychometrics

Gastrointestinal nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis Allergic pharyngitis and agranulocytosis, erythematous rash, fever combined with aching

and sore throat, larvngospasm and respiratory distress

Respiratory bronchospasm Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura Miscellaneous reversible alopecia. Oculomucocutaneous reactions involving the skin serous membranes and conjunctivae reported for a beta blocker (practolol) have not been conclusively associated with propranolol

Clinical Laboratory Test Findings Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase

DOSAGE AND ADMINISTRATION

HYPERTENSION -- Dosage must be individualized. The usual initial dosage is 40 mg INDERAL twice daily, whether used alone or added to a diuretic. Dosage may be increased gradually until adequate blood pressure is achieved. The usual dosage is 160 to 480 mg per day in some instances a dosage of 640 mg may be required. The time needed for full hyper-tensive response to a given dosage is variable and may range from a few days to several

While twice-daily dosing is effective and can maintain a reduction in blood pressure throughout the day, some patients, especially when lower doses are used, may experience a modest rise in blood pressure toward the end of the 12 hour dosing interval. This can be evaluated by measuring blood pressure near the end of the dosing interval to determine whether satisfactory control is being maintained throughout the day. If control is not adequate, a larger dose, or 3 times daily therapy may achieve better control

PEDIATRIC DOSAGE

At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use

INTRAVENOUS

The intravenous administration of INDERAL has not been evaluated adequately in the management of hypertensive emergencies

OVERDOSAGE OR EXAGGERATED RESPONSE IN THE EVENT OF OVERDOSAGE OR EXAGGERATED RESPONSE, THE FOLLOWING MEASURES SHOULD BE EMPLOYED:

BRADYCARDIA -- ADMINISTER ATROPINE (0.25 to 10 mg): IF THERE IS NO RE-

SPONSE TO VAGAL BLOCKADE. ADMINISTER ISOPROTERENOL CAUTIOUSLY CARDIAC FAILURE—DIGITALIZATION AND DIURETICS.
HYPOTENSION—VASOPRESSORS e.g. LEVARTERENOL OR EPINEPHRINE (THERE IS EVIDENCE THAT EPINEPHRINE IS THE DRUG OF CHOICE)
BRONCHOSPASM—ADMINISTER ISOPROTERENOL AND AMNOPHYLLINE

HOW SUPPLIED

INDERAL (propranolol hydrochloride) TABLETS.

No. 461 — Each scored tablet contains 10 mg of propranolol hydrochloride, in bottles of 100 and 1,000 Also in unit dose package of 100

No. 462 – Each scored tablet contains 20 mg of propranolol hydrochloride, in bottles of 100

and 1,000 Also in unit dose package of 100. No. 464 - Each scored tablet contains 40 mg of propranolol hydrochloride, in bottles of 100

and 1,000. Also in unit dose package of 100.

No. 468-- Each scored tablet contains 80 mg of propranolol hydrochloride, in bottles of 100. and 1,000 Also in unit dose package of 100

INJECTABLE No. 3265—Each ml contains 1 mg of propranolol hydrochloride in Water for Injection. The

pH is adjusted with citric acid. Supplied as: 1 ml ampuls in boxes of 10. Reference: 1, Freis, E.D. Hypertension (Suppl. II) 3:230 (Nov.-Dec.) 1981

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Historical Perspective of Surgery for Morbid Obesity*

ROBERT E. BROLIN, M.D., KAREN KASNETZ, R.D., DANIEL P. GREENFIELD, M.D., Piscataway

During the past 20 years, surgery has become recognized as an acceptable method of treatment for morbid obesity when nonoperative methods of weight reduction have been unsuccessful. Jejunoileal bypass, once considered the standard surgical approach, now has been abandoned by most surgeons because of the severity of the late complications. Presently, a variety of modifications of Mason's early gastric operations are in use. Despite the acceptable incidence of complications with the new gastric operations, other problems with these procedures must be solved before any one technique can be accepted for general use.

he term morbid obesity was coined by Payne and DeWind in 1963 in order to justify reimbursement by insurance carriers for the cost of jejunoileal bypass.¹ Statistics from a number of clinical studies of obesity done in the 1950s led the Metropolian Life Insurance Company to identify varying degrees of obesity as a significant risk to life.²

Early in the era of obesity surgery, basic criteria for the selection of patients for operation were established: 1) greater than 100 pounds over ideal weight as determined by life insurance tables; 2) absence of obesity-related endocrinopathy; 3) psychiatric stability; and 4) failure of multiple attempts at nonoperative weight reduction. There are ample data to justify use of the term "morbid" to describe obesity of this degree. In a recent study, Drenick found that morbidly obese males between the ages of 25 and 34 had a 12-fold greater incidence of death during those years than a comparable group of nonobese men.3 In the 25 years following the introduction of surgery for obesity by Kremen, in 1954, there was a proliferation of operations performed for this problem. More recently, physicians and surgeons have changed their attitude toward jejunoileal bypass, which was considered the cornerstone of surgical treatment. This article summarizes the history of obesity surgery to the present day and discusses some of the related problems.

JEJUNOILEAL BYPASS

Kremen's concept of weight loss induced through a state of controlled malabsorption by short-circuiting the small intestine was refined by Payne,5 Scott,6 Salmon,7 Buchwald,8 and others to a point where anastomosis of measured segments of jejunum to ileum would result in substantial weight loss for most patients. After experimenting with various lengths of jejunum and ileum, Payne and DeWind reported adequate weight loss in patients where 14 inches of jejunum were anastomosed end-to-side to 4 inches of terminal ileum.5 Scott6 and Salmon7 independently described an end-to-end jejunoileal anastomosis after observing reflux of a barium meal into the bypassed ileum of an end-to-side bypass; they attributed the inconsistency in weight loss they had seen following the Payne operation to this phenomenon. In a series of controlled clinical experiments, Scott found that 12 inches of jejunum anastomosed to 6 inches of ileum produced the best results.6 The distal end of the bypassed bowel was anastomosed to the transverse colon.

Despite the 25 to 30 percent incidence of early post-

^{*}From UMD-Rutgers Medical School, where Dr. Brolin is Assistant Professor of Surgery and Dr. Greenfield is Assistant Professor of Psychiatry; Ms. Kasnetz is a Registered Dietician at Middlesex General Hospital. Correspondence may be addressed to Dr. Brolin, Department of Surgery, UMD-Rutgers Medical School, P.O. Box 101, Piscataway, NJ 08854.

operative complications and the 3 to 6 percent operative mortality reported in several early series, 5.6.7 physician and patient enthusiasm was high and the number of intestinal bypasses performed in the 1970s proliferated. As more of these operations were done, reports of some of the serious late sequelae, including hepatic failure, 9.10.11 urinary calculi, 12.13 arthritis, 10.14 and vitamin deficiency 15.16 appeared in the literature. In 1975, Passaro and Drenick described the bypass enteritis syndrome. 17 This entity was characterized by intermittent episodes of abdominal pain, bloating, and diarrhea that occasionally was mistaken for peritonitis or intestinal obstruction, but responded to parenteral administration of broad spectrum antibiotics. Many patients with bypass enteritis went on to develop arthralgia, skin rash, and

"Today, after nearly 20 years of clinical experience with jejunoileal bypass, its use as a remedy for morbid obesity no longer seems justified."

cachexia.^{18,19} Later, Drenick incriminated bacterial overgrowth of the distal bypassed bowel as a cause for the syndrome. ¹⁸ He demonstrated large numbers of fecal flora in the lumen of the bowel with histologic evidence of chronic inflammatory changes in the mucosa and submucosa. In 1978, Phillips reviewed 226 articles reporting data on more than 6,100 bypass patients and found that 10 to 15 percent of the patients ultimately had their bypasses taken down with restoration of normal alimentary continuity because of incapacitating late sequelae.²⁰

Despite the growing number of bypass-related complications, the first public repudiation of jejunoileal bypass was delivered by Ravitch only two years ago.21 In addition to the many complications, Ravitch estimated the cost of postoperative followup including readmissions for complications and outpatient laboratory tests at nearly \$10,000 per patient. During the past two years, several other prominent surgeons, including Halverson, questioned the appropriateness of the operation as a treatment for morbid obesity.22 Halverson's analysis, with a series of 101 patients, showed only 18 percent with a good result and Hocking demonstrated histologic progression of liver disease in 34 percent of 53 patients during the first year after jejunoileal bypass.23 Today, after nearly 20 years of clinical experience with jejunoileal bypass, its use as a remedy for morbid obesity no longer seems iustified.

GASTRIC OPERATIONS FOR OBESITY

In 1969, Mason reported his early experience with gastric bypass as a treatment for morbid obesity.²⁴ At that time, this operation did not receive much support from the surgical community because of its technical difficulty and because weight loss was less consistent than with jejunoileal bypass. However, as the problems with jejunoileal bypass became recognized more widely, gastric bypass became a more acceptable method of treatment. In 1975, Mason updated his personal series and attributed improved results to a small calibrated 1.2 cm gastrojejunostomy stoma and a small 50 cc capacity fundic pouch.²⁵ Griffen's 1977 prospective randomized study of gastric versus jejunoileal bypass showed a

higher incidence of operative complications but lower incidence of late sequelae with gastric bypass and no significant difference in weight loss between the two procedures.²⁶

In 1979, Pace and Carey introduced the stapled gastric partitioning operation, touting its technical ease in performance and low incidence of operative complications relative to gastric bypass.²⁷ A substantial incidence of early staple-line disruption forced them to modify their original technique by adding a second, double row of staples and to recommend that patients having this operation remain on a liquid diet for eight weeks.²⁸ These modificiations improved their results but in no way guaranteed success. This led other surgeons, including Gomez,²⁹ Laws, ³⁰ and MacLean,³¹ to experiment with their own modifications of gastric stapling with the hope of finding a more reliable technique.

CURRENT STATUS AND REMAINING PROBLEMS

Presently, surgeons are left with a number of modifications of gastric bypass and gastric partitioning for comparison with the results of jejunoileal bypass, an operation that now has been abandoned by most surgeons because of the great risk. Although the incidence of complications is substantially lower with the new stapled gastroplastics, several recent controlled studies have shown that weight loss following gastric bypass is significantly better than that observed after stapled gastroplasty.^{32,33} Other clinical studies have shown that lean body mass is unchanged by weight loss following both gastric bypass and gastroplasty.^{34,35}

Perhaps the primary reason for the present state of uncertainty in obesity surgery is the lack of sufficient laboratory investigation of each new operative technique prior to its clinical application. Pace and his colleagues performed more than 200 gastric partitions before they realized the inherent weaknesses of their original technique and went back to the animal laboratory in an attempt to resolve these problems. Page 18 Mason has modified his gastric operation a number of times, presumably because his previous techniques did not produce a consistent degree of weight loss over the long term. Gomez and MacLean have reinforced the stoma of their gastroplasties with Marlex and Teflon only to find a substantial number of patients who developed obstruction or perforation with peritonitis.

The inconsistency of success with the original technique of gastric partitioning led Dr. Mark Ravitch and me to the animal laboratory in an attempt to find a method of preventing disruption of the staples with the hope of improving our clinical results. We found that the use of Marlex® or Teflon® did not reduce the incidence of staple-line disruption but led to a significantly greater incidence of leak and death from peritonitis. Also, we found that staple-line disruption begins at the stoma and proceeds laterally from that point, like a zipper, and that dilatation of the stoma results from staples gradually pulling out on one or both sides of the opening.

Another problem is the lack of consistency in reporting results. Weight loss in a series of patients sometimes is lumped together as an "average" for the entire group, while others arbitrarily have divided patients into groups by the "percentage weight loss" based upon the preoperative weight. The first method of reporting does not account for the number of individual patients who failed to lose weight, while the second method can be misleading in that massively obese patients (≥ 400 pounds) who lose 30 to 40 percent of their preoperative weight still may be more than 100 pounds over their ideal weight, yet, by that method of reporting, they

are considered as successful results. When a particular technique of operation does not lead to "adequate" weight loss in an acceptable percentage of patients, surgeons have been known to employ major technical modifications without first having tested their safety and reliability under controlled laboratory conditions. At present, it seems clear that surgery for morbid obesity still can be looked upon as experimental as the long-term effects of the newer operations are unknown.

From another perspective, morbid obesity is a serious health problem and candidates for any operation must have failed multiple attempts at nonoperative weight control. On that premise, perhaps any success in weight reduction in this group of patients could be looked upon as a triumph. Unlike jejunoileal bypass, the gastric operations require a considerable amount of patient compliance to ensure success. All of the gastric operations rely upon the satiety reflex to limit the amount of food which can be ingested at any one time. In order to ensure "healing" of the stapled stomach, patients are restricted to a liquid diet for several weeks after these operations. Lack of patient compliance with the liquid restriction has been shown to result in disruption of the staples and inadequate weight loss. 28,37 It is known that both the upper gastric pouch and stoma gradually enlarge with time, but it is not known whether progression of these changes will lead to regaining of lost weight over the long term, 28,36

PERSONAL EXPERIENCE

Since March of 1981, we have been performing a modification of the gastric partitioning operation, shown to be safe in our earlier laboratory studies, under the guise of a controlled clinical trial approved by the Human Resources Committee at Middlesex General Hospital. ³⁶ All prospective patients are informed of the experimental nature of this operation, are interviewed independently by both a dictician and a psychiatrist, and must satisfy the usual criteria for operation: absence of endocrinopathy, weight 100 percent or more over ideal weight, and willingness to comply with the liquid dietary restriction following the operation; patients are warned that failure to follow these instructions may lead to an unsatisfactory result.

At this writing, we have done 11 operations; 9 of the patients have been followed for at least three months. There has been one complication, a leak in the staple line resulting from malfunction of the TA-90 stapler; the staple line was repaired successfully at a second operation. One patient, who did not abstain from solid food for the required period of time, had disruption of the partition and inadequate weight loss. The remaining patients have continued to lose weight. During the first several months, patients can be expected to lose from 5 to 10 pounds per week, a rate which gradually decreases to 1 to 3 pounds weekly after all dietary restrictions have been lifted. The transition from full liquids to soft solids is difficult for some patients who are cautioned to take small bites, chew thoroughly, and swallow slowly. Counseling by the dietician has been essential in assisting patients in the selection and preparation of soft solid foods and in allowing a maximum number of food choices during the period of liquid restriction. Vomiting, which probably is caused by clumps of food sticking in the stoma, has been a problem for three patients; they improved gradually in each case within a few weeks. Most patients report taking nearly an hour to finish a small meal. All patients with obesity-related medical problems, such as diabetes, hypertension, and venous stasis,

had either improvement or resolution of the problem within the first several months of operation.

CONCLUSION

We feel a multidisciplinary approach to the problem of morbid obesity is essential, particularly since a surgical remedy is being used to treat a condition which clearly is nonsurgical in nature. In addition to regularly scheduled followup visits with the surgeon, dietician, and psychiatrist, an endocrinologist has assisted us in the evaluation of several patients. From a surgeon's viewpoint, obesity surgery is unlike any other in that followup must continue indefinitely and success is more dependent upon patient compliance than precision in operative technique. Presently, we are cautiously optimistic about our early results, realizing that the favorable early experience of others was tainted later by problems. On the other hand, we are committed to disclosure of our results to the general medical community, particularly since we feel this type of surgery is still in its experimental stages.

SUMMARY

Morbid obesity is a serious health problem which has been associated with a mortality of more than six times that of nonobese young and middle-aged adults.³ During the past 20 years, surgery has been employed as a last resort for morbidly obese patients who have been unable to shed their excess

"We feel a multidisciplinary approach to the problem of morbid obesity is essential."

weight by all other methods. For most of that time, jejunoileal bypass was the standard method of treatment, but increasing awareness of the severity and unpredictability of the many late complications has led most surgeons to abandon this approach. In 1966, Mason introduced gastric bypass as an alternative method of treatment, but this procedure never gained widespread popularity because of its technical difficulty, high incidence of early postoperative complications, and lack of consistency in producing weight loss. During the past several years, a number of modifications of stapled gastroplasty have been described, most of which seem to have an acceptably low incidence of complications. However, weight loss with the new gastroplasties is not as consistent as one would wish. Recent clinical and laboratory research has shown that both the upper fundic pouch and stoma gradually enlarge with time following all of the gastric operations and, to date, there is no one technique that has solved those problems. Previous experience has shown that patient compliance in abstaining from solid food during the first several weeks after operation is necessary for success. A multidisciplinary team including a dietician, psychiatrist, internist, and surgeon is important for proper evaluation and selection of patients for operation as well as in postoperative followup. Because the long-term effects of these new operations are unknown, it may be premature to recommend their clinical use outside of the guidelines of a controlled clinical study.

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Prenatal Diagnostic Services in a Community Hospital*

TILLIE YOUNG, M.S., CAROLINE LIEBER, M.S., Hackensack FRANKLIN DESPOSITO, M.D., Newark

A followup survey of 300 patients who underwent midtrimester amniocentesis for genetic studies at a community hospital in New Jersey is reported; safety and reliability of results compared favorably with major genetics centers. Some advantages of this method of delivery of prenatal diagnosis are discussed.

idtrimester amniocentesis, mostly for advanced maternal age (35 years and over), represents the fastest-growing segment of clinical genetics services, and now is an accepted part of good obstetrical procedure; ready access to the test has become a necessity.

Prenatal diagnostic services at the community hospital, including genetic counseling and cytogenetic laboratory services, furnished through a link with a nearby medical school, provide one answer.

A recent survey of 300 patients, who underwent the procedure in our satellite program, indicates that safety and reliability of results compare favorably with the figures reported by major genetics centers. Some advantages of this method of delivering prenatal diagnosis are discussed.

A survey was conducted in an effort to obtain followup information about pregnancy outcome of patients who had midtrimester amniocentesis for prenatal diagnosis in a community hospital during 1979.

The Genetics Service of Hackensack Medical Center began in 1975 and, like other such services, has experienced rapid growth. By 1979, close to 300 patients per year were being provided with prenatal diagnostic services in a program serving three densely populated counties (Bergen, Passaic, and Hudson). While followup reports of patients who have undergone the procedure have been published in several studies, these have been conducted in large medical centers, with comprehensive genetics departments including on-site cytogenetic laboratory facilities. J. To date, little followup information is available on pregnancies monitored in the growing number of community outreach programs.

PROCEDURE

All patients who underwent midtrimester amniocentesis at Hackensack Hospital during 1979 were included in the survey.

While most had been referred by their obstetrician, other referral sources included the family doctor, pediatrician, and clinic and planned parenthood programs. (Many initial inquiries come from prospective patients themselves.)

A brief discussion was held between the genetic counselor and each patient before the procedure, including information about waiting time for results, the risks and limits of prenatal diagnosis, and other questions raised by the patient.

All amniocenteses were performed by a trained obstetrician at 16 to 20 weeks after last menstrual period (LMP). Ultrasound for fetal age and placental localization was performed in all instances under the direct guidance of a radiologist present at the time of the tap. Laboratory studies were performed at the Cytogenetic Laboratory of the University of Medicine and Dentistry of New Jersey in Newark, 20 miles away.

INDICATIONS

Two hundred forty of 280 patients (84.2 percent) had been referred for advanced maternal age—35 and over at expected

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TABLE 1
Indications and Results

Indication	Number (%)	Normal	Abnormal
Maternal Age 35	240 (84.2)	233	7
Previous Child with Trisomy	7 (2.4)	7	<u>-</u>
Previous Child with Neural Tube Defect	7 (2.4)	7	-
Family History of Chromosome Abnormality or Neural Tube Defect	18 (6.3)	18	_
Translocation Carrier Parent	1 (0.4)	_	1
Other (Maternal Anxiety of Unstudied Multiple Abnormalities	12 (4.2)	12	_
TOTALS *3 samples resulted in culture failures; the taps were not repeated 2 taps failed to obtain fluid	285*	272 (97.1) Q 139 (51.1) O 133 (48.9)	8 (2.9)

TABLE 2 Abnormal Results				
Indication	Result	Outcome		
Translocation Carrier Parent	45, XX, †(14,21)	Continued		
Maternal Age 36	47, XY, +inv dup 15p	Terminated		
Maternal Age 36	47, XY, +21	Terminated		
Maternal Age 36	45, XO/46, XX	Continued		
Maternal Age 38	47, XXX	Continued		
Maternal Age 40	47, XX, +21	Terminated		
Maternal Age 41	47, XY, +21	Terminated		
Maternal Age 41	47, XY, +21	Terminated		

date of confinement (EDC). Referrals mostly came from physicians, usually obstetricians, but some patients were self-referred or came from clinics or through agencies such as Planned Parenthood. The remainder were done for a variety of other reasons, including family history of chromosomal abnormality, neural tube defect, or extreme maternal anxiety. Regardless of indication for the tap, all amniotic fluid samples were analyzed for both fetal chromosomes and alpha-fetoprotein levels (Table 1).

RESULTS

All alpha-fetoprotein levels were found to be within the normal range for gestational age; no undetected neural tube defects or other abnormalities were reported. Of chromosome results, 97.1 percent were normal; a total of eight amniocenteses (2.9 percent) yielded chromosome results other than normal 46XX or 46YY (Table 1).

As expected, the sex distribution was even for males/females, and no errors in prenatal sex determination were made. (In no case was this the indication for the test.)

Additional genetic counseling was provided for the eight

couples with abnormal results (Table 2), by a conference with the medical geneticist and the genetic counselor. Of these, five pregnancies were terminated at each patient's request. Four were for Down's syndrome, and one was for an unusual rare bisatellited extra fragment (inverted duplication of the short arm of chromosome #15) found in all cells and believed to be associated with a substantial risk of mental retardation. The other three pregnancies—a balanced 14/21 carrier like her mother, a Turner's mosaic with a majority of normal cells, and a 47 XXX fetus—were continued and all resulted in the birth of apparently normal infants. In all, 1.8 percent of patients who had amniocentesis made the decision to have an elective abortion. Followup counseling was provided to all of these families.

FOLLOWUP

For the year 1979, a questionnaire was sent to the referring physician requesting information about each case. Of 280 questionnaires sent out, 250 were returned, a 92.5 percent response rate. Five cases could not be followed, and 16 other questionnaires were not returned (Table 3).

TABLE 3 Followup					
	Number	Percent			
Questionnaires Returned	259/280	92.5%			
Adverse Outcome Miscarriage Stillbirth	2/259 1/259 1/259	7.6% 3.8% 3.8%			
Normal Outcome	257/259	93.4%			
Low Birth Weight (5.5 pounds)	12/259	4.6%			
Premature by Dates (2 weeks before EDC)	22/259	8.4%			

TABLE 4 Laboratory Complications					
Number Perce					
First Culture Successful	269/283	95.1%			
First Culture Failure Incubator Failure Bloody Tap Other	14/283 8 4 2	4.9%			
Repeat Amniocentesis	11/14	78.5%			
First and Second Cultures Successful	280/283	. 98.9%			

COMPLICATIONS

Information returned indicated that there were few adverse outcomes following amniocentesis. One infant was stillborn six weeks after the tap. One miscarriage occurred one week following the procedure, and one patient with two previous miscarriages reported leakage of fluid which subsided and a normal infant was born at term. A safe outcome, therefore, was noted in 99 percent of the patients undergoing the procedure.

Twenty-two (8.5 percent) babies were born two weeks or more before EDC, and 12 (4.3 percent) had birth weights less than or equal to five and a half pounds. Figures for prematurity and low birth weight cannot be compared with those from other studies without socioeconomic data that is not available to us, but we believe these figures are not excessive for the 35 to 40 age groups.^{1.8}

LABORATORY PROBLEMS

Fourteen amniotic fluid samples (4.9 percent) failed to yield adequate numbers of cells for analysis; 4 due to bloody taps and 10 due to culture failure. All second taps grew successfully, though three patients chose not to return for a repeat tap. Two other taps yielded no fluid (0.8 percent). The 5 percent rate of culture failure seems to reflect both a single incubator incident (involving 6 of 10 culture failures) and the necessity to transport fluid samples from the hospital to the medical school laboratory 20 miles away. Procedures have been streamlined, but amniotic fluid samples must be handled gently and cultures started promptly for optimum cell growth (Table 4).

DISCUSSION

Few comments were received, and none were adverse.

Patients' reactions can be polled better by questions addressed directly to them, which will be a topic for future study. Physicians appear comfortable with procedures and pregnancy outcomes as evidenced by the increasing numbers of referrals made in the past few years.

The role of the genetic counselor is a pivotal part of such a program. Such an individual acts as coordinator between patients, physicians, hospital, and laboratory, providing a central contact of responsibility from the initial inquiry by the patient, doctor, or other referral source through the reporting of results and handling of confidential information. Graduate training in genetics counseling and other requisite skills is available through several programs specifically designed toward filling the need created by the burgeoning of clinical genetics and prenatal diagnostic services. ^{2,6}

While most patients receive reassurance in the form of normal results (and we are aware of a number of pregnancies which have been undertaken and/or continued because of access to such services), there will, of course, be a small percentage of abnormal results, and an occasional equivocal problem. The relationship begun with the genetic counselor in preamniocentesis counseling and continued through her presence at the tap itself, lends important support. Every patient undergoing amniocentesis should be considered as a potential "problem." The involvement of the counselor in underscoring the explanation by the clinical geneticist of abnormal findings and the counselor's availability to the patient and her partner in the weeks and months to follow (and even during subsequent pregnancies) can be a critical factor in patient and family adjustment. We see this as an essential part of a successful prenatal diagnosis programthe procedure is vastly different from the usual medical test procedure.5

SUMMARY

Midtrimester amniocentesis at this community hospital has grown in the past five years from a small pilot program to a routine procedure. We feel our experience has demonstrated that doctors and patients in suburban areas no longer need rely solely on large metropolitan medical centers, but that the procedure can be offered with comparable safety at the community hospital level. This results not only in greater convenience, but in easier access to the procedure for patients who find it difficult to travel to the nearest large city or university medical center. Obstetricians can care for their own patients and those of colleagues in a centralized facility where the procedure is available on a routine basis. It is essential that the appropriate equipment and trained personnel be on hand, including a staff genetic counselor and a consultant medical geneticist. An excellent cytogenetic laboratory facility with a dependable pickup system for fluid samples is a requirement for any community level program offering genetic services.

ADDENDUM

A similar survey of the 304 amniocenteses done here in 1980 is in progress; the initial impression is that results will be very similar except in two respects: a lower rate of repeat tests may be due to improved transport of samples; and, a smaller number of abnormal results may be a function of a slightly younger patient population.

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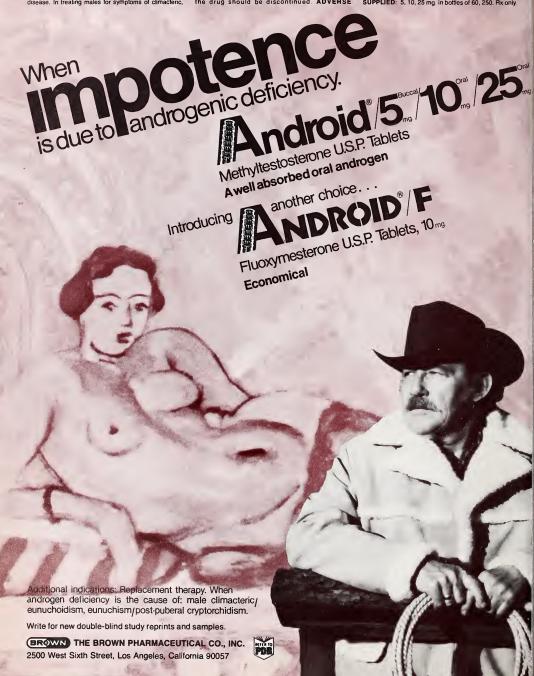
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patients with compromised cardiac reserve or renal
disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of sucreasing the nervousmental, and physical activities beyond the patient's cardiovascular capacity. CONTRAINDICATIONS: Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast Contraindicated in the presence of severe liver damage. WARNINGS: If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphysical closure or precocious sexual developmen. Hipersensitivity and gynecomastia majo androgens. Hypercalcemia, may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. ADVERSE REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast accrimena. This usually indicates progression of bone metastases • Sodulin and water retention • Priapsim • Willization had vital of the progression of th



STATE OF THE ART

Noninvasive Techniques in Cardiac Diagnosis*

ROBERT M. MACMILLAN, M.D., and LOUIS S. ZEIGER, M.D., Camden

The diagnosis of cardiac disease has been enhanced greatly by the application of new technology. The clinician has a wide variety of tests that may be selected to establish the diagnosis of a suspected cardiac ailment. The goal is total reliance upon noninvasive testing with elimination of the need for invasive diagnostic procedures.

valuation of heart function can involve implementation of a wide variety of technological tools. These devices may be as ordinary as a stethoscope and sphygmomanometer or as sophisticated as computer transmission tomography. By tradition, cardiac diagnostic testing has been divided into invasive and noninvasive categories. Invasive techniques utilize cardiac catheterization in one of its many forms (Table 1). Noninvasive techniques do not penetrate the skin with the exception of intravenous injections (Table 2).

By virtue of its prevalence in the United States population, coronary artery disease is the model against which new diagnostic techniques usually are developed. This disease is insidious, frequently presenting with atypical symptoms. The early diagnosis in nontypical cases too often is not made, so that sudden death or myocardial infarction is the first manifestation. Technology has focused on earlier detection of coronary artery disease. This communication will describe the noninvasive methods used for cardiac diagnosis with special emphasis on indications and specific conclusions that can be obtained from these procedures.

VECTORCARDIOGRAPHY (VCG)

The vectorcardiogram is a derivative of two, simultaneously recorded scalar electrocardiograms. Loops are recorded in three planes—frontal, horizontal, and sagittal—and the integration yields a three-dimensional view of the

wave of depolarization of the atria and ventricles and the repolarization of the ventricles (T loop).1 Lead systems used are numerous, but consensus favors the Frank system (85 percent). Specific advantages of the vectorcardiogram over the standard 12-lead scalar electrocardiogram are: recognition of undetected atrial and ventricular hypertrophy; greater sensitivity in detection of myocardial infarction; and superior capability for the diagnosis of multiple infarctions in the presence of fascicular and bundle-branch blocks.² A further application is the timed vectorcardiogram ("running loop") for analysis of cardiac arrhythmias. Every combination of bundle-branch block and variations are perceived by recording frontal and horizontal running loops simultaneously.3 The vectorcardiographic loop in Wolff-Parkinson-White syndrome virtually is pathognomonic of this condition.4 The VCG should be ordered for very specific clinical situations. It best is utilized when the attending clinicians and vectorcardiographer discuss the patient. Pattern reading of VCGs is not recommended. The procedure remains of limited clinical use so much so that many cardiologists receive no formal training in this discipline.

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TABLE 1

Cardiac Diagnostic Procedures: Invasive

- Hemodynamic monitoring (Swan-Ganz catheterization)
- 2. Contrast angiography
- 3. Coronary arteriography
- 4. Ergonovine provocation for coronary spasm
- 5. Electrophysiologic evaluation

TABLE 2

Cardiac Diagnostic Procedures: Noninvasive

- 1. Cardiac Graphics
 - a. Electrocardiography
 - b. Vectorcardiography
 - c. Phonocardiography
 - d. Apexcardiography
 - e. Carotid pulse recording
 - f. Systolic time intervals
- 2. Ambulatory electrocardiographic monitoring
- 3. Radiologic
 - a. Four-view chest x-ray
 - b. Cardiac fluoroscopy
 - c. Computed transmission tomography
- 4. Ultrasonic
 - a. M-mode echocardiography
 - b. Two-dimensional echocardiography
- 5. Radioisotopic scanning
 - a. Technetium-99m-pyrophosphate
 - b. 201 Thallium (rest and exercise)
 - c. Radionuclide angiography (rest and exercise)
 - d. Positron emission tomography

SYSTOLIC TIME INTERVALS (STI)

Phonocardiography employs sensitive microphones to record heart sounds; this permits more accurate timing and identification. Apexcardiography records the movements of the apex impulse during the cardiac cycle. An excellent concise text on this subject has been authored by Morton Tavel.5 From the phonocardiogram, electrocardiogram, and carotid pulse recording, one can derive the systolic time intervals. The three major intervals derived are: total electromechanical systole (Q-S₂), left ventricular ejection time (LVET), and preejection phase (PEP) (Figure 1). The PEP typically becomes prolonged with decreasing cardiac output states, i.e. heart failure, while LVET can vary depending upon the etiology. The ratio of PEP to LVET remains constant at 0.35 (SD±0.04); in heart failure it rises. Valvular heart disease limits the value of STIs which best are applied to nonvalvular disease states.6,7 With the advent of other cardiac diagnostic techniques, STIs have not proved to be sufficiently useful for widespread clinical practice. Their greatest value is as a teaching tool of cardiac physiology.

EXERCISE TESTING

Exercise testing allows evaluation of the heart under actual performance conditions. Its widest application has been as a screening test for coronary ischemia (Figure 2). Also, it is used to test for arrhythmia potential, response to therapeutic modalities, and physical conditioning. Forms of exercise most employed are the Masters "2-step" exercise test, bicycle ergometer, and treadmill. When positive, the Masters "2-step" exercise test is a reliable indicator of ischemia, but it has a very low sensitivity index. Its value lies in its ease of use in an office or outpatient setting. With the advent of treadmill and bicycle ergometry, the Masters "2-step" exercise test should be utilized only when there is no access to

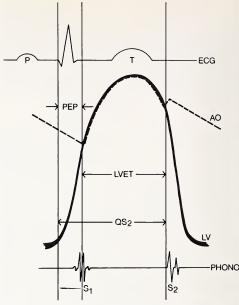


Figure 1—The systolic time intervals are shown in relation to the phases of the cardiac cycle. AO: Carotid pressure pulse; LV: Left ventricular systolic pressure wave.

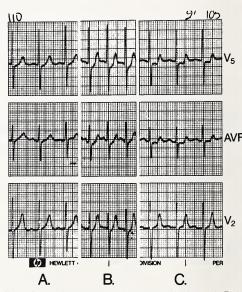


Figure 2—An abnormal treadmill stress test is shown. A: Early low level exercise with normal ST segments; B: Approaching peak exercise showing J point depression and upsloping ST segment equivocal for ischemia; C: Two minutes postexercise with horizontal ST segment depression of I mm shows a positive test.

these other forms of testing. A negative Masters "2-step" exercise test for ischemia should not be considered reliable. Preference for bicycle ergometer or treadmill appears to be more personal than scientific, unless specific exercise forms

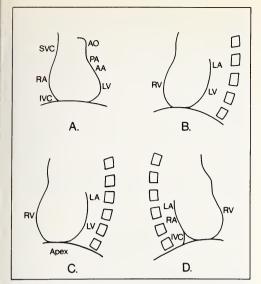


Figure 3—The four-view chest x-ray. A: Posterior-anterior; B: Left lateral; C: Left anterior oblique; D: Right anterior oblique.

require one over the other, e.g. supine exercise. It is of predominant importance with either form to achieve sufficient cardiac workloads, judged by reaching a percentage of the maximum heart rate for age which is greater than or equal to 85 percent. For detection of coronary artery disease, the closer to maximum heart rate a patient can be pushed, the more sensitive are the results. Unfortunately, as a test for coronary ischemia, the exercise test is influenced greatly by the number of coronary vessels having greater than 70 percent stenosis. For single, double, triple, and left main coronary stenoses greater than or equal to 70 percent, one can expect 40 percent, 65 percent, 75 percent, and 85 percent, respectively, of the maximum treadmill stress tests to be positive.8

Exercise testing is hampered further by frequent false positive results due to effects of hyperventilation, digitalis, left ventricular hypertrophy, and hypokalemia. False positivity is more common in women; a cause of continuing controversy. Interpretation of a positive exercise test by the clinician requires clinical integration. In a patient with a classical history of angina pectoris, a positive test confirms the diagnosis. In a patient with a doubtful history, a positive test implies chance occurrence and/or false positivity. In a patient with "atypical chest pain," a positive test must be considered presumptive evidence of coronary artery disease requiring further confirmation.

THE FOUR-VIEW CHEST X-RAY

The posterior-anterior and lateral chest x-ray frequently is insufficient for evaluation of the cardiac silhouette. The posterior-anterior chest x-ray will reveal right atrium, aortic knob, pulmonary outflow area, left atrial appendage (if enlarged), and left ventricular free wall with apex (Figure 3A). The left lateral film will show right ventricular outline anteriorly, and left atrial and ventricular outlines posteriorly. Prominence and/or posterior bulging of the left atrial or ventricular outlines is abnormal and denotes chamber enlargement (Figure 3B). The left anterior oblique projection

shows the right ventricular silhouette as the anterior outline and the left atrial and ventricular silhouettes as the posterior outline (Figure 3C). This projection is more sensitive for detecting left ventricular hypertrophy and dilatation and is diagnosed when the left ventricular silhouette overlaps the vertebral shadows. The right anterior oblique projection shows the right ventricle in outline anterior and various structures contributing to the posterior outline: left atrium, right atrium, and inferior vena cava (Figure 3D). This projection is used to detect right ventricular enlargement.

COMPUTED TRANSMISSION TOMOGRAPHY

Computed transmission tomography applies the same technology to the heart as CT scanners to the brain. CT scanning of the heart became possible only when the scan time could be reduced, thus reducing artifact secondary to cardiac motion. Cardiovascular imaging is facilitated greatly by intravenous contrast medium. One can scan rapidly enough now to mark the passage of medium through the heart. Anatomy can be defined clearly. CT scanning has been useful in identifying left ventricular aneurysm, left ventricular mural thrombus, right ventricular tumor, aortic aneurysm, and aortic dissection. Other potential applications are: patency of coronary grafts, cardiac output, detection of intracardiac shunts, and accurate measure of myocardial thickness.

ECHOCARDIOGRAPHY

Passage of an ultrasonic beam through the anterior chest wall and the heart results in echoes being returned to a properly calibrated receiver not unlike sonar detects objects in water. The single linear beam method is called M-mode. Since structures in the heart are moving during the cardiac cycle one can inscribe on paper various wave forms which are characteristic of those structures. One of the earliest uses of the M-mode echocardiogram was to separate normal mitral valve diastolic leaflet motion from that of mitral stenosis (Figures 4A and 4B).

"CT scanning has been useful in identifying left ventricular aneurysm, left ventricular mural thrombus, right ventricular tumor, aortic aneurysm, and aortic dissection."

The decrease in E-F slope of the anterior leaflet and the anterior movement of the posterior leaflet that normally moves posteriorly is necessary for the diagnosis of mitral stenosis. M-mode echocardiography can be used to measure chamber dimension, e.g. right and left ventricle, left atrium, and aortic root. It is reliable for detection of pericardial effusion. Other structures that can be visualized are right ventricular free wall, interventricular septum, and posterior left ventricular free wall. Abnormal movements of these structures have been described. All four cardiac valves have been visualized. The mitral valve has been studied most extensively. Abnormalities of mitral valve motion have been recorded in systole, e.g. systolic anterior movement in idiopathic hypertrophic subaortic stenosis (ASH) or posterior mitral valve leaflet systolic movement as in mitral valve

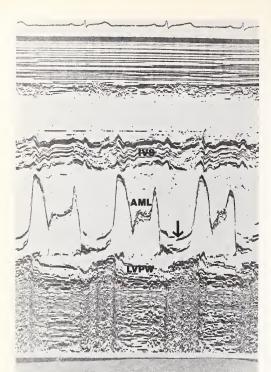


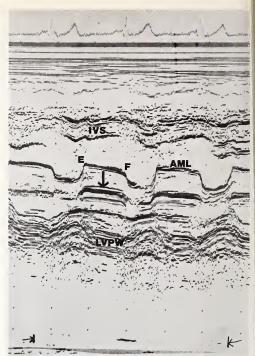
Figure 4A—M-mode echocardiogram showing normal diastolic movement and "hammocking" in systole compatible with mitral valve prolapse (arrow). B—M-mode echocardiogram showing mitral stenosis. Note the flat E-F slope and the anterior move-

prolapse. Aortic root dissection, flail mitral valve, atrial myxoma, and valvular vegetations can be diagnosed.

Two-dimensional echocardiography evolved when multiple beams could be sent sequentially through the heart, allowing real-time imaging. The results are the visualization of structures as if by tomography. It is useful for noninvasive evaluation of regional wall motion of the left ventricle. This reduces the need for contrast ventriculography (Figure 5). This application remains qualitative at present. Observations of the movement of the internal structures of the heart greatly have increased our knowledge. Now we are able to observe the dynamic interrelationship of structures to one

"Two-dimensional echocardiography evolved when multiple beams could be sent sequentially through the heart, allowing real-time imaging."

another, which had not been possible with any other technique. Two-dimensional echocardiography has been used to predict aortic valve area, 2 detect chamber enlargement (Figure 6), recognize pericardial effusion, define mitral valve prolapse, and detect atrial myxoma and ventricular throm-



ment of the posterior leaflet (arrow). AML: Anterior mitral leaflet; PML: Posterior mitral leaflet; LVPW: Left ventricular posterior wall; IVS: Interventricular septum.

bus (Figure 7). Two-dimensional echocardiography is useful in acutely ill patients in the coronary care unit setting for sequential evaluation following medical or surgical therapy. It may allow a diagnosis to be confirmed early and noninvasively, e.g. bacterial endocarditis, pericardial effusion, pericardial tamponade.^{13,14}

AMBULATORY MONITORING

Recording of the electrocardiogram for 12 or 24 hours has contributed to our ability to diagnose paroxysmal cardiac arrhythmias. 15.16 This allows correlation of symptoms with documented rhythm disturbances, in order to distinguish organic illness from psychophysiologic illness. 17 It identifies malignant arrhythmias, e.g. paroxysmal ventricular tachycardia or heart block, from more benign varieties. Effects of therapeutic intervention can be determined and dosage adjustments rationally arrived at by utilizing blood level determinations where possible. Two-channel recorders have enhanced analysis of ectopic beats. Research is being conducted with combined electrocardiogram and continuous or sequential blood pressure monitoring. The limiting factor has been an accurate method for peripheral noninvasive measurement of systemic blood pressure.

RADIONUCLIDES IN CARDIAC DIAGNOSIS 99M-TECHNETIUM PYROPHOSPHATE INFARCT IMAGING

Routine technetium pyrophosphate (99m-Tc-PYP) scanning of the heart is based upon the observation that acutely injured myocardial tissue binds the tagged pyrophosphate-



Figure 5—2-D echocardiogram showing the left ventricle (LV) at end systole. Note the LV apex (area bounded by arrows) is round and has failed to contract. (Courtesy M. Barrett, M.D., Med. Coll. of Pennsylvania)

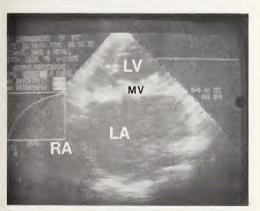


Figure 6—2-D echocardiogram in a patient with severe mitral stenosis and marked left atrial enlargement. MV: Mitral valve; LA: Left atrium; LV: Left ventricle; RA: Right atrium. (Courtesy M. Barrett, M.D., Med. Coll. of Pennsylvania)



Figure 7—2-D echocardiogram demonstrating left ventricular thrombus (arrow). LV: Left ventricle; S: Interventricular septum. (Courtesy M. Barrett, M.D., Med. Coll. of Pennsylvania)

	TABLE 3						
Results of 99m-Tc-Pyrophosphate Infarct-Avid Imaging ¹⁸							
	Sensitivity Positive Result	Specificity Negative Result					
Acute myocardial infarction-transmural/ nontransmural	89%	11%					
Unstable angina pectoris	41%	59%					
Chest pain with no evidence of infarction or coronary ischemia	14%	86%					

tin complex. Its primary application at present is to identify acute myocardial infarction as a hot spot. A summary of clinical studies totaling more than 3,000 patients was used to estimate the sensitivity and specificity of the procedure (Table 3). The sensitivity for detection of myocardial infarction, both transmural and subendocardial, was 89 percent. The specificity was 86 percent; of 1,486 patients shown not to have acute myocardial infarction, 86 percent had a negative scan. The presence of myocardial necrosis is indicated by isotopic uptake of myocardium and is graded two to four plus. Two plus (2+) uptake is the faintest, and definitely increased uptake seen in the region of the heart. Three plus (3+) uptake is equivalent to that of bones and four plus (4+)uptake occurs when uptake is greater than surrounding bones. 19 The timing of the scan is important and the scan appears to be most sensitive when done 48 to 96 hours after acute myocardial infarction. Some scans may remain positive up to seven days after an acute myocardial infarction. A major problem in use of this test lies with the 41 percent positive scans seen in patients with documented unstable angina pectoris. The unstable angina scan usually is seen as diffuse left ventricular uptake in contrast to the focal uptake of infarction. Other causes of false positive tests include: myocardial contusion, left ventricular aneurysm, and left ventriculotomy. Clinically, 99m-Tc infarct imaging is advantageous when the electrocardiogram is nondiagnostic, when cardiac enzymes are equivocal, or when the infarct is suspected to be three to four days old. It must be remembered that the test may be negative in the first 24 to 36 hours of infarction making it of little value for early detection. Rotating slant hole emission tomography, a refinement of this technique, may allow quantitation of infarct size in the very near future.20

201THALLIUM CHLORIDE MYOCARDIAL PERFUSION SCINTIGRAPHY

When 201 thallium chloride is injected into a peripheral vein it is taken up selectively by the heart muscle. The distribution quantitatively throughout the myocardium is proportional to the blood flow to each region. Failure of a region of the myocardium to take up thallium will be evidenced by marked reduction in counts detected by scintigraphy in that region. A defect seen during a rest scan is interpreted as either infarction or ischemia.21 The thallium technique detects acute myocardial infarction within hours of onset and is more sensitive than 99m-technetium pyrophosphate. It is of limited usefulness clinically because it is unable to distinguish acute from old myocardial infarction. Recent data reveal that when repeat rest scans are performed three hours after initial injection of thallium, (redistribution) defects may "fill in" and represent ischemic zones which can be differentiated from infarction.

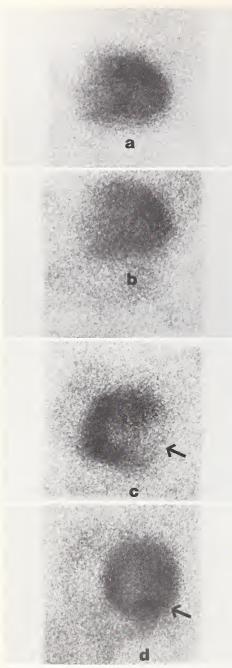


Figure 8—Myocardial perfusion using 201Tl chloride in association with exercise. A—Anterior view immediate postexercise with normal distribution; B—Anterior view three hours postinjection showing normal redistribution; C—60° LAO view immediate postexercise demonstrating decreased uptake by posterior wall (arrow); D—60° LAO view three hours postexercise demonstrating filling in of the posterior wall perfusion defectcompatible with ischemia.

TABLE 4

Results of Thallium Chloride (201TC1) Scans in Detection of Coronary Artery Disease²²

Detection of Coronary Artery Disease ²²							
Exercise/Redistribution	Interpretation	Sensitivity					
Scan comparison							
Transient defect*	Transient myocardial ischemia.	82% (CAD detection					
Persistent defect	Prior acute myo- cardial infarction.	95%					
Defect at exercise with partial filling in	Prior myocard ial infarction with superim- posed ischemia.	Not established					
Rest defect	Acute or prior infarction.	90%					
*In a normal population (this study is normal i	in 95% of patients					

therefore, there is a false positive rate of 5%.

Thallium scintigraphy has been combined with the exercise test. A patient is exercised to a prearranged endpoint, e.g. symptom threshold, ST segment abnormality by ECG, or target heart rate. Thallium is injected and exercise continued for 30 seconds to a minute to allow myocardial redistribution. Scintigraphy is initiated within one to five minutes (Figure 8A). A redistribution scan is performed three hours after the initial scan (Figure 8B). Defects seen at exercise which show no change at redistribution are consistent with infarction (Table 4). Defects seen at exercise which "fill in" three hours later are consistent with ischemia without infarction (Figures 8C and 8D).21 Partial filling in of defects during redistribution is felt to represent ischemia superimposed upon partially infarcted regions. Redistribution scans were not performed routinely when the peak exercise scan was found to be normal; however, recent data have demonstrated decreased "washout" of myocardial segments at redistribution and have been correlated with coronary arteriography to represent ischemic segments (Figure 9). The redistribution technique must be done by computer analysis based upon counts versus time. Observer eyeballing of 201thallium exercise scans must be discouraged without computer backup

A significant problem remaining in thallium scintigraphy is the lack of quantitation of myocardial segments by counts; thus, only the most ischemic segment is detected. Differentiation between one, two, or three vessel disease is not possible yet.²³ False positive scans can occur due to breast shadows in some women and diaphragm interference depending on the projection angle. The test is expensive; therefore, clinical use should be tempered by proper patient selection.

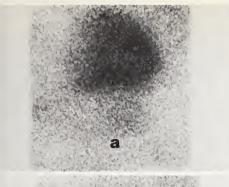
analysis for confirmation otherwise the test's value is reduced

RADIONUCLIDE ANGIOGRAPHY

markedly.

Technetium can be injected into a peripheral vein as a bolus. With the advent of rapid sequence scintigraphy, the bolus can be followed as it passes through the heart chambers producing an angiogram with anatomic definition of the size and shape of each chamber. This technique is called "first pass" because the bolus distributes itself throughout the blood volume rapidly producing no further information during subsequent recirculations. This method can detect right to left shunts by early appearance. Left ventricular ejection fraction can be derived by analysis of end-systolic and end-diastolic frames. Wall motion can be determined by definition of end-diastolic and end-systolic perimeters.

Technetium can be bound to the red blood cell as a tin-



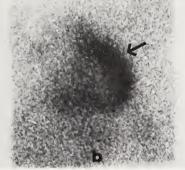


Figure 9—²⁰¹Thallium exercise scan demonstrating. A—Normal perfusion immediately postexercise; and B—Delayed washout of the anterior wall three hours postexercise (arrow).



Figure 10—Radionuclide angiogram gated blood pool study in left anterior oblique view. RV: Right ventricle; LV: Left ventricle; S: Interventricular septum; PA: Pulmonary artery; AO: Aorta.

pyrophosphate complex. The isotope will be distributed uniformly throughout the blood pool. Electronically, one can partition the cardiac cycle and collect count data for each partition. When sufficient cardiac cycles produce critical numbers of counts an image can be produced which is called

TABLE 5

Comparison of Clinical Results of ²⁰¹Thallium Perfusion Scintigraphy Vs. Radionuclide Angiographic Exercise Testing for Detection of Coronary Artery Disease from 315 patients²²

		Sens	Spec	
201 T		82%	95%	
Blood pool,	(RNA)	82%	84%	
Ex ECG		64%	98%	
Blood Pool	= Exercise radionuclide	angiogra	aphy	
RNA	= Radionuclide angiogi	raphy		
Spec	= Specificity			
Sone	= Sensitivity			

= Exercise ECG testing alone

Ex ECG

the region of interest and which can be distinguished clearly from background. Anatomic definition of the heart chambers and great vessels can be distinguished (Figure 10). Frame-by-frame analysis can produce end-systolic and endiastolic perimeters as well as time-activity curves used to evaluate regional segmental motion of the left ventricle and ejection parameters. The presence of irregular cardiac rhythms such as atrial fibrillation or ventricular bigeminy limit the use of this method. Statistical comparison of ejection fraction derived by contrast ventriculography and gated equilibrium has been good (r=0.87-0.93).²⁴

Exercise testing has been combined with the radionuclide angiogram (gated pool) for the detection of coronary artery disease. Patients are exercised using a supine bicycle ergometer and data collected at peak levels of exercise and at rest and/or recovery.²⁴ The left ventricular ejection fraction increases in patients without disease. Patients with coronary heart disease will show no increase or an actual decrease. The interpretation of a normal response to a suboptimal exercise level currently is unclear. Data comparing sensitivity and specificity of ²⁰¹thallium stress scintigraphy, radionuclide angiography with exercise, and routine ECG monitored exercise testing for detection of coronary artery disease are shown in Table 5.

POSITRON EMISSION TOMOGRAPHY

Positron emission tomography has been developed as an instrumentation-computer system for imaging the distribution of positron emitting isotopes in a digital tomographic display. N13H3 (ammonia) and Rb82C1 (rubidium, a potassium analog-like thallium) have been used to obtain a three-dimensional or tomographical display of myocardial perfusion at rest, after exercise, and after administration of drugs such as Persantine®. Researchers at University of California-Los Angeles25 have documented a sensitivity and specificity for the detection of significant coronary artery disease superior to use of stress thallium. N13H3 and Rb82Cl have an in vivo distribution that describes myocardial perfusion. F18 deoxy-glucose has been used to investigate distribution of glucose metabolism in the myocardium. Myocardial metabolism of lipids and glucose are under current investigation at University of California-Los Angeles and University of Michigan, with reference to a relationship in early detection of asymptomatic coronary artery disease. Broad clinical use is projected by 1983.25

SUMMARY

The clinician has a vast technology to evaluate a patient for suspected heart disease. Much of this technology has

evolved out of the desire to reduce our dependence upon invasive diagnostic methods, i.e. cardiac catheterization. Electrocardiographic techniques include ambulatory monitoring, vectorcardiography, and systolic time intervals. Ultrasound consists of M-mode and real-time, twodimensional techniques. Each of these methods complements the other. Radioisotopic scanning consists of thallium myocardial perfusion, technetium pyrophosphate infarct imaging, radionuclide angiography, and positron emission tomography. The addition of computer technology has been essential to radionuclide techniques and is critical in the research and development of computerized radiographic tomography which promises to reduce markedly the need for cardiac catheterization. Noninvasive methods seldom produce 100 percent sensitivity and specificity. The physician interpreting data must be familiar with testing methodology, rationale, and limitation that impair reliability of results. Cost of noninvasive procedures is substantial and indiscriminate selection of diagnostic tests well may exceed that of cardiac catheterization.

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CASE REPORTS

Flail Mitral Leaflet: An Echocardiographic Diagnosis*

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Acute regurgitation due to flail mitral leaflets often demands early surgical intervention. Although the abnormality can be inferred from an M-mode echocardiogram, the addition of spatial orientation in cross-sectional echocardiography allows the actual flailing to be seen. This procedure can provide an expedient and accurate noninvasive diagnosis of flail mitral leaflets.

linical recognition of acute mitral regurgitation due to ruptured chordae tendineae or a ruptured papillary muscle is important because of the poor prognosis and the prospect of successful surgical intervention. Although M-mode echocardiography has been useful, cross-sectional (2-D) echocardiography, by adding spatial orientation, has proved superior in the recognition of this disease entity. This report illustrates a case and reviews the various echocardiographic characteristics of flail mitral leaflets.

CASE REPORT

The patient was a 67-year-old white male admitted to Saint Michael's Medical Center for evaluation of progressive shortness of breath over the preceding several weeks in spite of treatment with furosemide, hydralazine, and digoxin. He gave a history of acute rheumatic fever during childhood and subacute bacterial endocarditis 21 years ago. Six weeks prior to admission, the patient had no symptoms of heart failure. There was no history of myocardial infarction or chest trauma. Physical examination revealed a laterally displaced apical impulse and a grade 3/6 holosystolic murmur at the apex radiating to the axilla. The liver was 14 cm in span and nontender. Examination was otherwise unremarkable. Complete blood count, SMA6, SMA12, and urinalysis were within normal limits. Chest roentgenogram revealed cardiomegaly with clear lung fields. An electrocardiogram showed atrial fibrillation with a normal ventricular rate, left anterior hemiblock, and nonspecific ST-T changes. The M-mode and 2-D echocardiograms are illustrated.

Cardiac catheterization disclosed severe mitral regurgitation. At surgery, there was marked enlargement of all cardiac chambers. The mitral valve was grossly abnormal. Both leaflets were redundant and flail with several chordae hanging free from the leaflets. Approximately 25 percent of the chordal attachments still were intact. The posterior leaflet was large, thickened, and billowing but no gross calcification or vegetation was noted on either leaflet. Microscopic examination revealed thickening and focal fibrosis, collagenization, and hyalinization of the leaflets.

DISCUSSION

Flail mitral leaflets resulting from rupture of the suspensory apparatus of the mitral valve are not an uncommon occurrence. Papillary muscle rupture has been known to complicate myocardial infarction, trauma, bacterial endocarditis, syphilis, and periarteritis nodosa. Chordal rupture usually occurs spontaneously in patients with valves deformed by rheumatic heart disease, swith active or healed bacterial endocarditis, old following direct or indirect trauma to the heart in Marfan's syndrome, or in mitral valve prolapse syndrome. It rarely occurs in idiopathic

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hypertrophic subaortic stenosis¹⁶ or following an acute myocardial infarction.¹⁷ Although rupture of a few chordae tendineae may not lead to significant hemodynamic instability, the consequences of a major chordal or papillary muscle rupture usually are catastrophic.¹⁷ Since aggressive and prompt surgical intervention has yielded beneficial results,¹⁸ expeditious diagnosis is vital. Echocardiography has proved to be an important and accurate noninvasive tool for this purpose.

The M-mode echocardiographic findings suggestive of a flail mitral valve are numerous. 19-22 The moving leaflet margin held perpendicular by the remaining intact chordae results in high frequency systolic fluttering.19 This sign appears to be highly specific for flail leaflets. Child et al. did not find such fine systolic flutter in 230 patients with uncomplicated mitral valve prolapse or mitral regurgitation from causes other than a flail leaflet.20 Similar observations have been made by others.21 Although Nanda et al. reported systolic valve fluttering in patients with mitral valve prolapse and bacterial endocarditis, the possible coexistence of flail leaflets was not clarified in their study.22 The lower velocity antegrade diastolic flow running parallel to the untethered mitral leaflet edge results in a coarse diastolic fluttering of the flail leaflet.19 The coarse diastolic fluttering of the mitral leaflets seen with atrial fibrillation or flutter usually is rhythmic,23 while the diastolic flutter with aortic regurgitation²⁴ or following balloon atrial septostomy usually is fine.25 The coarse fluttering of the mitral leaflets also may occur with severe mitral regurgitation due to generalized myocardial dysfunction or regional left ventricular dysfunction involving the base of a papillary muscle.26,27 However, this will involve both leaflets and is present throughout

diastole. The untethering of the mitral leaflets results in chaotic and paradoxical diastolic motion and systolic prolapse into the left atrium.²⁸ The latter is seen more commonly as the sole diagnostic feature of mitral valve prolapse syndrome²⁹ while the dependent motion of the mitral posterior valve leaflet in mitral stenosis is slow and smooth.²⁴ Since the flail mitral leaflet projects into the left atrium during systole, the left atrial echocardiogram which normally is free of echoes.³⁰ may reveal systolic echoes.²⁰ Similar abnormal left atrial systolic echoes have been seen with left atrial tumors or clots.³¹ Several nonspecific signs also have been recognized with the flail mitral valve. E point notching or

"Flail mitral leaflets resulting from rupture of the suspensory apparatus of the mitral valve are not an uncommon occurrence."

rounding of the anterior leaflet has been noted with chordal disruption of the posterior leaflet.³² The excessive blood volume handled by the left ventricle secondary to mitral regurgitation results in vigorous systolic excursion of the left ventricular walls, systolic posterior displacement of the left atrial wall, and increased amplitude and velocity of mitral valve opening.^{30,32,33} Several of these findings were seen in our patient's M-mode echocardiogram (Figures 1 and 2).

Although there have been many signs published, the M-

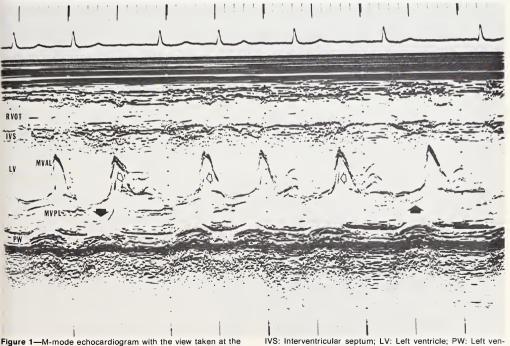


Figure 1—M-mode echocardiogram with the view taken at the level of the mitral valve. The posterior mitral leaflet reveals systolic prolapse (closed arrows) and paradoxical diastolic motion (open arrows). RVOT: Right ventricular outflow tract;

IVS: Interventricular septum; LV: Lett ventricle; PW: Lett ventricular posterior wall; MVAL: Mitral valve anterior leaflet; MVPL: Mitral valve posterior leaflet.

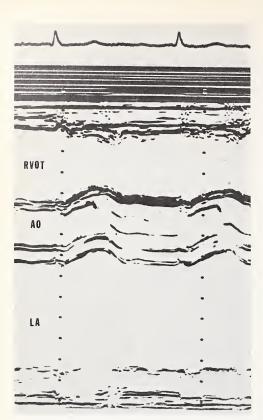
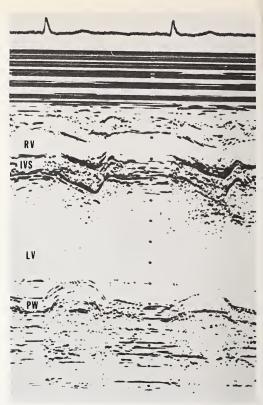


Figure 2—M-mode echocardiogram with the view taken at the level of aortic root (left) and left ventricle below the mitral valve (right). Note that the left atrium is enlarged and is free of echoes. The left ventricle is dilated and reveals hyperdynamic motion.

mode echocardiographic diagnosis of flail mitral valve usually must be made by inference, since the actual flailing leaflet rarely is seen. Consequently, the preoperative diagnosis of a flail mitral valve most always requires hemodynamic and angiographic confirmation.³³ By contrast two-dimensional echocardiography adds spatial orientation and readily allows direct visualization of the flail mitral leaflet in most instances.³⁴ The increased sensitivity and specificity of two-dimensional echocardiography has been shown.³⁵ This procedure should provide the clinician with a rapid, easy, and reliable noninvasive tool for the diagnosis of ruptured chordae tendineae.

"Two-dimensional echocardiography adds spatial orientation and readily allows direct visualization of the flail mitral leaflet in most instances."

Several recent reviews have drawn attention to the twodimensional criteria for flail mitral leaflets.^{20,34,35,36} A systolic whipping arclike motion usually is observed, especially in the



RVOT: Right ventricular outflow tract; AO: Aorta; LA: Left atrium; RV: Right ventricle; IVS: Interventricular septum; LV: Left ventricle; PW: Left ventricular posterior wall.

long-axis view. This is visualized better if the transducer gently is rocked laterally and medially. In the long-axis and apical four-chamber views, abnormal or absent coaptation of the mitral leaflets will be observed, the flail leaflet projecting beyond the line of valve closure into the left atrium. This contrasts with the findings in mitral valve prolapse where the tips of the leaflets always coapt despite posterior displacement of the coaptation point.31 Incomplete coaptation rarely may be noted in left ventricular aneurysm or dilatation; in these conditions, however, the coaptation point is displaced towards the apex of the left ventricle.38 An unusually long anterior mitral leaflet in a relatively small left ventricular cavity may result in abnormal coaptation in IHSS; the mitral leaflet beyond the coaptation projects into the left ventricular outflow tract.34 The final finding is the visualization of echoes in the left atrium during systole in the short-axis views at the base. This is not a consistent finding since a short flail posterior leaflet may be missed. Occasionally, these prolapsing echoes may mimic a mass²⁰ and may suggest falsely the presence of a valvular vegetation or clot (as occurred in our patient). Hyperdynamic left ventricular motion usually is present and helps to confirm the presence of severe mitral regurgitation (Figures 3 and 4).

SUMMARY

Echocardiographic visualization of flail mitral leaflet pro-



Figure 3—A two-dimensional echocardiogram with apical fourchamber views: left, during diastole a mass-like echo (arrow) is recorded from the posterior mitral valve leaflet; and right, during systole the posterior leaflet is seen prolapsing into the left atrium



(arrow) with loss of normal coaptation with the anterior leaflet. The left atrium is enlarged. RV: Right ventricle; TV: Tricuspid valve; RA: Right atrium; LV: Left ventricle; MV: Mitral valve; LA: Left atrium.



Figure 4—A two-dimensional echocardiogram with a short axis view at the base: left, during diastole the left atrium, which is



enlarged, is free of echoes; right, during systole a mass of echoes (arrow) representing the prolapsed flail leaflet are noted.

vides an easy, prompt, reliable, and noninvasive diagnostic modality. By providing spatial orientation two-dimensional echocardiography has proved superior to M-mode echocardiography in the diagnosis of this entity. A case is illustrated and the echocardiographic criteria are reviewed.

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- echoes (arrow) representing the prolapsed flail leaflet are noted.
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An Unusual Case of Hypersensitivity Vasculitis Probably Due to Allopurinol*

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Hypersensitivity vasculitis with acute orchitis, gastrointestinal bleeding, hematuria, and rapidly progressive renal failure occurred in a 58-year-old black male with chronic renal failure, who was rechallenged with allopurinol after the drug inadvertently was discontinued for three days. Diuretics and chronic renal failure may increase the risk of type III hypersensitivity vasculitis in patients treated with allopurinol.

llopurinol is used widely for the treatment of hyperuricemia. However, it is associated with many side effects, such as skin rash, bone marrow depression, and hepatitis. A diffuse hypersensitivity vasculitis secondary to allopurinol has been described; it is associated with fever, eosinophilia, abnormal liver enzymes, and 'renal failure' and may be fatal if unrecognized. Our patient developed a diffuse allergic vasculitis secondary to allopurinol that was unusual in that he lacked the typical manifestations of skin rash, fever, and eosinophilia.

CASE REPORT

A 58-year-old black man was admitted to Monmouth Medical Center with an extensive past medical history that included arteriosclerotic heart disease, gouty arthritis, diabetes mellitus, chronic passive liver congestion, hypertension, congestive heart failure, ascites, and chronic renal failure. This admission, similar to many in the past, was for increasing shortness of breath. Physical examination revealed moist rales one-half the way up the lung fields bilaterally, neck vein distention, a prominent third heart sound, and peripheral edema. Ascites was the same as before. Our diagnosis was congestive heart failure; chest x-ray confirmed this. The electrocardiogram was unchanged from previous tracings. Medications at the time of admission included digoxin, furosemide, long-acting nitrates, potassium supplements, and allopurinol. Initial laboratory values showed normal

complete blood count and serum electrolytes; blood urea nitrogen was 86 mg/dl; serum creatinine was 3.3 mg/dl; and uric acid was 11.1 mg/dl. These values essentially were unchanged from past values.

His hospital course initially was uneventful and he improved with intravenous furosemide, salt, and fluid restriction. His chest x-ray improved and he was treated with usual oral medications including allopurinol 300 mg daily for a few days. However, the allopurinol inadvertently was discontinued and he remained off this drug for three days. It was then restarted at the same dose. Two days later he began to complain of swollen, painful testes. This was interpreted as an early epididymitis. He was treated with a scrotal support, amoxicillin, and warm soaks creating some improvement. Blood urea nitrogen and creatinine rose to 100 mg/dl and 4.2 mg/dl. The diuretics were reduced appropriately. The blood urea nitrogen and creatinine rose rapidly in the next few days to almost double the admission values. Hyperkalemia was found and this was managed with glucose, insulin, and oral potassium binding resins. His liver enzymes remained unchanged from past values. Progressively he become mentally obtunded. On the day of his demise, hematuria and an episode of gastrointestinal bleeding were noted. Throughout

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this terminal event the patient remained afebrile, never manifested any skin rash, and never showed peripheral eosinophilia. All blood and urine cultures were negative. His condition progressively deteriorated and he expired with refractory ventricular fibrillation. Additional laboratory studies were: negative antinuclear antibodies; negative hepatitis B surface antigen; and a depressed C₃ of 42 mg/dl and a C₄ of 8 mg/dl. The C₃ and C₄ determinations were performed postmortem. Normal values at Monmouth Medical Center laboratories are: C₃ 70-175 mg/dl and C₄ 16-45 mg/dl.

PATHOLOGIC FINDINGS AT AUTOPSY

Microscopic examination revealed an extensive acute vasculitis involving small- and medium-sized vessels of the heart, lungs, liver, testis (Figure 1), kidney (Figure 2), colon, and the vasa vasorum of muscular arteries. There was a necrotizing orchitis and colitis secondary to the vasculitis. The only two organ systems not involved by the vasculitis were the brain and skin. There was no evidence of a preexisting or healed vasculitis; all lesions had advanced to a similar stage. Giemsa staining showed many eosinophils and mononuclear cells in the lesions. Also, the patient had generalized arteriosclerosis.

DISCUSSION

The salient clinical features, course, and pathological findings in the previously described cases of allopurinol-induced vasculitis are presented in the Tables. A number of conclusions may be drawn from this review. Most patients manifested fever, skin rash, and progressive renal deterioration. Eosinophilia frequently was present. Most reported cases had been treated with allopurinol for 1 or 2 months before the hypersensitivity reaction occurred. However, one previously reported patient had been treated with this drug for 18 months, and one for nine years. Our patient was treated with allopurinol for over two years before the drug inadvertently was discontinued and restarted several days later. Deterioration of renal function then occurred. Reexposure to the drug may have precipitated the acute immunologic event.

"Most patients manifested fever, skin rash, and progressive renal deterioration. Eosinophilia frequently was present."

Two days after restarting allopurinol, our patient developed acute disseminated vasculitis manifested by progressive mental obtundation, testicular pain, gastrointestinal bleeding, oliguric renal failure, and hyperkalemia. However, he lacked fever, skin rash, and eosinophilia, three of the most common manifestations of vasculitis. At the postmortem examination, the organ systems involved were diffuse, including liver, testes, colon, heart, and lung. Serum complement was low suggesting a type III reaction with immune complex deposition.

Many patients in whom vasculitis occurred had preexisting renal impairment or were being treated with thiazide diuretics. With normal renal function, the plasma half-life of allopurinol is about 2 hours. Allopurinol has rapid renal clearance and also is oxidized to oxipurinol, an active



Figure 1—Section from testis taken at necropsy demonstrating arterial and periarterial infiltrate consisting of monocytes, polymorphonuclear neutrophils, and eosinophils. The surrounding testicular tissue is undergoing coagulative necrosis (hematoxylin and eosin x 24).

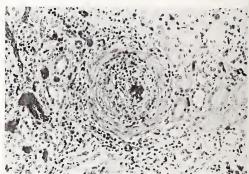


Figure 2—Section from kidney taken at necropsy showing a small artery whose lumen almost is obliterated by inflammatory cells (hematoxylin and eosin x 50).

metabolite. Both uric acid and oxipurinol are reabsorbed by the renal tubules. The half-life of oxipurinol is 18 to 30 hours. The clearance of oxipurinol is diminished greatly in renal failure. Thiazide diuretics decrease renal excretion of uric acid. Since the renal handling of oxipurinol is similar to that of uric acid, thiazide diuretics may cause accumulation of oxipurinol. Our patient did have preexisting renal failure and was treated with diuretics as well.

The proposed pathophysiologic mechanism for hypersensitivity vasculitis is a type III immunologic reaction involving circulating immune complexes and tissue deposit of these complexes. The release of vasoactive amines produces increased vascular permeability. Immune complexes precipitate on the vascular endothelium with activation of complement. Inflammatory changes occur in and around arteriolar walls with resultant fibrinoid necrosis and thrombosis. Utsinger and Yount have demonstrated such circulating immune complexes with granular deposits of IgM at the dermal epidermal junction of skin.10 They suggested that the immune complex deposit is responsible for the endothelial inflamatory reaction and subsequent vasculitis. Lymphoblast transformation in the presence of allopurinol and oxipurinol also has proved to be of value, but the test is not positive consistently.11 Lockard noted that immunologic and chemical cross-reactivity occurs between allopurinol and oxipurinol.13

Clinic	cal Features	Reported Patier	TABLE ats with Allopu	rinol-Induced	Hypersensitivity	Vasculitis	
Clinical Features	i						
Patient Number	1 1	2	3	4	5	6	7
Author	Jarzobski	Kantor	Mills	Mills	Young	Young	Bailey Salway
Age	76	72	52	59	40	67	57
Sex	М	M	M	F	М	М	F
Fever	+	+	+	+	+	+	+
Skin Rash	+	+	+	+	+	+	+
Renal Failure	+	+	+	+	+	+	+
Eosinophilla	+	+	+	+	+	+	-
GI Symptoms	+	+	+	+	+	+	_
Selzures	-	-	-	-	-	-	-
Outcome	Died	Died	Survived	Survived	Died	Survived	Survived
Duration of Treatment With Drug	1-2 mo	1 mo	1 mo	1-5 mo	1 mo	1 mo	1-5 mo
Pathological Findings	Vasculitis, giant cell, and eosino- philic re- action	Angiitis, glo- merulitis (IgG), nodu- lar hemor- rhagic areas of lungs	skin, skin	Not available	Centrilobular necrosis of liver, focal glomerulone- phritis	Not available	Temporal and skin arteritis

TABLE Clinical Features of Reported Patients with Allopurinol-Induced Hypersensitivity Vasculitis							
Clinical Features							
Patient Number	8	9	10	11	12	13	14
Author	Calin	Weiss	Malé	Utsinger	Devulder	Hamilton	Falco
Age	66	17	70	57	?	37	58
Sex	М	M	M	F	F	M	М
Fever	-	-	+	+	+	+	_
Skin Rash	+	_	+	+	+	+	-
Renal Failure	+	-	+	-	_	+	+
Eosinophilia	-	-	+	+	_	-	-
GI Symptoms	+	-	+	-	+	-	+
Selzures	-	+	-	-	-	-	-
Outcome	Survived	Survived	Survived	Survived	Survived	Survived	Died
Duration of Treatment With Drug	18 mo	9 yrs	10 days	1 mo	1 yr	2 mo	2 days
Pathological FindIngs	Vasculitis of skin	HGPRTase deficiency, cerebral vasculitis on angiograf	Vasculitis of skin m	Vasculitis of skin (IgM), circulating immune complexes	Not available	Not available	Vasculitis of heart, lungs kidneys, liver, testes, colon

Steroids, supportive care, and discontinuation of the offending drug generally are considered appropriate therapeutic measures. Our patient was not treated with steroids, as the diagnosis was made at postmortem examination.

SUMMARY

Allopurinol has been implicated in severe hypersensitivity reactions including vasculitis in susceptible patients. Preexist-

ing renal disease and concomitant diuretic administration are associated predisposing factors. The onset of the vasculitis may occur weeks or even years after onset of administration and typically manifests by fever, skin rash, eosinophilia, and progressive multisystem failure. All of these stigmata were not present in the case reported here. We advise caution in using allopurinol for hyperuricemia in patients with preexisting renal failure or concomitantly with diuretics.

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We need YOU to tell us about an impaired colleague!

Experience clearly shows that victims of chemical abuse and most psychiatric impairments are not capable of perceiving their behavior realistically. Therefore, they are incapable of reaching out by themselves for the help needed to avoid irreversible damage to themselves and others, and to take the first step toward rehabilitation.

The Impaired Physician Committee of MSNJ is a group of physicians, many of whom have recovered from substance abuse and addiction, who approach impaired physicians with advocacy and experience.

We know that you, personally, do not know what to do with these colleagues. We do! But we have to know who they are. The earlier the problem is recognized and attacked, the easier it is to solve.

It is normal human behavior to ignore problems that appear insoluble. Unfortunately, the psychopathy of substance abuse and addiction always gets worse while it is ignored.

TRUST US! We can help in the majority of cases. Your anonymity is guaranteed. Call (609) 896-1884—only specially trained personnel will handle your call.

Help us to help our impaired colleagues.

THERAPEUTIC DRUG INFORMATION

Benoxaprofen and Cyproheptadine

This information is compiled by the International Pharmaceutic Drug Information Center (IDIC), affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences of Long Island University.*

Please provide information on benoxaprofen.

Benoxaprofen (Opren®), a nonsteroidal antiinflammatory drug (NSAID), is under phase III clinical investigation in the United States by Eli Lilly and Company. Its mechanism of action is different from other presently available NSAIDs and it is effective when administered once a day.

Barry et al. compared the efficacy of three different dosage levels of benoxaprofen to placebo in three groups of patients with active rheumatoid arthritis (RA). Benoxaprofen significantly was better than placebo at all dosage levels. Although the highest dosage level, 800 mg daily, was most effective, it produced the greatest incidence of adverse effects.

Gum² studied the long-term efficacy and safety of benoxaprofen in patients with active RA. Single daily doses of 400 to 600 mg of benoxaprofen were compared to aspirin (multisource) and 1.4 to 2.4 of ibuprofen (sold as Motrin® and Rufen®). The latter two drugs were administered in their usual fashion. The aspirin-treated group reported the most side effects and the antiinflammatory effect of benoxaprofen was greater than the other drugs.

Atkinson et al.3 compared benoxaprofen 600 mg given in a single daily dose to 750 mg naproxen (sold as Naprosyn®) administered in divided doses in RA patients. No significant differences were noted between treatments. Blechman4 compared benoxaprofen to naproxen in the treatment of osteoarthritis; again, there was no significant difference between the treatments.

Bird et al. compared the efficacy of benoxaprofen 600 mg daily to indomethacin (sold as Indocin®) 25 mg three times a

day in ankylosing spondylitis. The treatments produced similar effects with the exception that relief of night pain was better in the indomethacin-treated patients.

The adverse reactions associated with benoxaprofen have been mild to moderate in severity, and usually not severe enough for patients to discontinue therapy. These effects included nausea, vomiting, epigastric pain, slight depression, and dizziness. A small number of patients exhibited drugrelated skin reactions, such as pruritus, photosensitivity, and onycholysis.

In conclusion, benoxaprofen appears to be an effective and safe NSAID. It has the advantage of once-daily dosing.

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^{*}The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians. The Director of the Center is Jack M. Rosenberg, Pharm. D., Ph.D.; the Consultant is Walter A. Modell, M.D. This month's column was prepared by J.M. Rosenberg, Pharm. D., Ph.D., H.L. Kirschenbaum, Pharm. D., Ghazala Saleem, M. Pharm., M.S., Jayne Ritz, R.Ph., and Frances P. Martino, R.Ph. Correspondence may be addressed to the International Pharmaceutic Drug Information Center, 81 DeKalb Avenue, Brooklyn, NY 11201.

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Do you have information on cyproheptadine as an appetite stimulant?

Cyproheptadine (available as Periactin®) is an antihistamine with antiserotonergic properties used in allergic disorders. Prior to 1971, Merck, Sharp & Dohme (MSD) promoted cyproheptadine for the stimulation of appetite in children ages 2 to 14 years. Subsequently, the FDA questioned the adequacy of evidence for this and, as a result, MSD removed this indication for cyproheptadine and does not plan to reinstitute it at the present time.¹

Lavenstein et al. in 1962 were the first investigators to show that cyproheptadine increased weight gain in chronic asthmatic children.

Bergen³ in a 15-week study compared appetite-stimulating properties of cyproheptadine 4 mg four times a day with placebo in a group of 12 asthmatic children. The cyproheptadine-treated group demonstrated significant increases in appetite, food intake, and weight gain. Termination of therapy was followed by decrease in appetite, rate of weight gain, or actual weight loss.

Aikman et al. in a 12-day, multicenter, double-blind trial, compared cyproheptadine to placebo in 89 adults and 41 children who were underweight and exhibited anorexia. Cyproheptadine-treated adult patients had a significant increase in appetite followed by a significant increase in weight gain. There were no significant differences between active agent and placebo in the children.

Goldberg et al.5 conducted a random, placebo-controlled,

double-blind study involving 81 adult female patients diagnosed as having anorexia nervosa. The investigators reported that cyproheptadine was effective in inducing weight gain especially in a subgroup of anorexia nervosa patients with a history of birth delivery complications and prior outpatient treatment failure.

Other investigators⁶⁻⁹ have reported significant weight gain associated with cyproheptadine therapy.

Adverse effects associated with cyproheptadine therapy in the studies reviewed were not serious and included drowsiness and lethargy.²⁻⁹

In conclusion, although the proposed mechanism for this effect has not been elucidated clearly, cyproheptadine appears to cause an increase in weight gain in certain patients at least on a short-term basis.

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NUTRITION UPDATE

Diet and Coronary Heart Disease*

MARY WINSTON, Ed.D., Dallas, TX

rteriosclerosis, commonly described as hardening of the arteries, has been recorded for centuries. Atherosclerosis is a type of arteriosclerosis characterized by a deposition of fatty substances (primarily cholesterol and cholesterol esters) in the intima of the medium and larger arteries. Scarlike, fibrous tissue may build up around the deposit, forming a plaque that may become calcifed. As the plaque protrudes into the lumen (opening) of the vessel, a progressive narrowing occurs until, in some cases, total obstruction or occlusion takes place. When the narrowing of coronary arteries is severe the result is chest pain (angina pectoris); complete occlusion leads to myocardial infarction and often sudden death. Occlusion of one of the arteries to the brain causes a stroke; in arteries of the leg,occlusion causes claudication (pain and lameness) and gangrene; and occlusion of the renal arteries may cause hypertension and poor renal function.

This article will deal primarily with coronary atherosclerotic disease, the major cause of death and disability in the United States, accounting for an estimated two-thirds of a million deaths each year.

THEORIES OF ATHEROSCLEROSIS

The pathogenesis of coronary atherosclerosis is complex and multiple factors are involved. The accumulation of large amounts of lipids in the arteriosclerotic plaque has led to the so-called lipid hypothesis. The credibility of this hypothesis is based on the frequent occurrence of excessive amounts of cholesterol and lipids in lesions, the positive association between elevated serum lipids and atherogenesis in man and animals, and the association between specific diseases and genetic disorders of lipid metabolism. Another theory regards atherogenesis as a process involving the organization and degeneration of mural thrombi (arterial blood clots) into atherogenesis plaques. A more recent theory suggests that benign neoplastic changes in the smooth muscle cells of the arterial wall may initiate atherosclerotic plaques, but there is considerable evidence against this hypothesis. These theories are not mutually exclusive. It is not a case of one theory against another. Although the lipid hypothesis has several variants that propose specific mechanisms through which it may operate, it regards atherogenesis as a process intimately concerned with and due to abnormal lipid metabolism. There is a significant amount of supportive information relating to this theory. It is important to emphasize two key points: increasing levels of plasma cholesterol are associated closely with increasing rates of atherosclerosis, and dietary fats increase cholesterol.

Evidence for the lipid hypothesis has come from epidemiological and animal studies. Epidemiological studies, both international and in the United States, repeatedly have shown high degrees of correlation between the intake of cholesterol and other lipids and the prevalence of coronary heart disease in various populations.2 Almost without exception, animal studies show that experimentally induced hypercholesterolemia is followed by the accumulation of cholesterol in the large arteries and, under certain conditions. even more advanced manifestations of arteriosclerosis are produced.3 Conversely, work in monkeys has revealed a causal relationship between dietary cholesterol or saturated fat, plasma cholesterol, and regression of atherosclerosis. Finally, work on cultured cells has shown that certain lipoproteins from normal or hypercholesterolemic serum rapidly are taken up by arterial smooth muscle, endothelial cells, and skin fibroblasts.4

Current knowledge about the pathogenesis of the atherosclerotic plaque indicates that atherosclerosis begins early in life. Clinically, it becomes important when excessive arterial smooth muscle cell (SMC) proliferation is accompanied by the accumulation of large quantities of extracellular and intracellular cholesterol esters and other lipids as well as by the excessive production of collagen. elastin, and possible esters and glycosaminoglycans. These biochemically complex lesions, with their tendency to promote thrombosis and arterial wall weaknesses, lead to a variety of clinical effects. Scientists have suspected that these effects may be retarded or prevented if arterial SMC proliferation and lipid deposition are prevented. It has been proposed that significant reduction of plasma lipids in patients with developing atherosclerosis will inhibit further progression of the disease. It may lead to significant regression, a decrease in the size as well as evidence of healing of the advanced plaque.5

^{*}Reprinted with permission of Contemporary Nutrition 6:9, 1981, a newsletter from the Nutrition Department of General Mills, Inc., Minneapolis, MN. Mary Winston is Chief, Nutrition Programs, American Heart Association, 7320 Greenville Avenue, Dallas, TX 75231.

LIPOPROTEINS

The major lipids found in the blood are cholesterol, triglyceride, and phospholipid. They circulate in the blood in the form of lipoproteins that vary in size, weight, and amounts of cholesterol and other lipids. There are four major classes of lipoproteins, namely, chylomicrons, very low density lipoproteins (VLDL), low density lipoproteins (LDL), and high density lipoproteins (HDL). Chylomicrons and VLDL are the main carriers of triglyceride and LDL is the main carrier of cholesterol, although HDL also carries substantial cholesterol. High density lipoproteins (HDL) are the heaviest of the lipoproteins and contain the highest proportion of protein. Having a high level of HDL seems to be desirable because there is evidence that this lipoprotein carries cholesterol away from tissues including the arterial intima. Low density lipoproteins (LDL) are thought to be the major source of cholesterol and cholesterol esters in the atherosclerotic plaques, and deposition of cholesterol in plaques is accelerated when LDL concentrations are evaluated.6 Examination of coronary arteries by x-ray or necropsy has shown that the severity of atherogenesis is greater in individuals with higher levels of LDL and/or with lower levels of HDL. These studies have not revealed any threshold levels of LDL below which atherosclerosis becomes apparent. This finding is in conformity with epidemiologic findings within populations and in crosscultural comparisons that show risk decreases with decreases in plasma cholesterol levels.

DIET AND CORONARY HEART DISEASE

Over 20 years of extensive epidemiological findings consistent with clinical, pathologic, and animal experimental data have identified at least four major risk factors which occur with a high degree of frequency in individuals who have coronary heart disease (CHD). They are high plasma cholesterol, particularly elevated low density lipoprotein cholesterol (LDL), hypertension, cigarette smoking, and diabetes. Secondary risk factors are high blood triglycerides, low plasma high density lipoproteins (HDL), obesity, stress, lack of exercise, and personality type. Diet may affect four of these. In addition, male sex; age, and familial history are implicated.

Serum cholesterol and lipoprotein levels are influenced by many factors. Whether the evidence comes from epidemiologic or metabolic studies, no factor has been more closely correlated with them than diet, particularly the saturated fat and cholesterol composition of the diet.⁸

Saturated fat tends to raise the level of cholesterol in the blood. Several metabolic studies have provided unequivocal evidence that saturated fats *per se* increase concentrations of cholesterol in man.^{9,10} The plasma cholesterol elevating effect of saturated fatty acid is approximately twice as great as the lowering effect of polyunsaturated fatty acid.¹⁰

Dietary cholesterol is a determinant of plasma cholesterol although the quantitative effect seems to be subject to considerable individual variation. Over a low to moderate range of intake (100 to 700 mg/day), the plasma response to cholesterol is linear and amounts to about 5 mg/day change in dietary cholesterol. Others have reported that plasma cholesterol is not markedly affected by dietary cholesterol once a substantial intake is achieved. In the control of the c

Certain types of fiber are effective hypocholesterolemic agents. Large amounts of mucilaginous fibers (guar and pectin)¹⁴ reduce plasma LDL and cholesterol levels as do

various legumes, oats, apples, and a mixture of vegetables; whereas wheat fiber is without effect. The mechanism is unclear. Carbohydrates, simple or complex, as part of a mixed diet seem to have little effect on lipid levels.¹⁵

Plasma concentrations of HDL cholesterol are increased significantly by ethanol. The effects on HDL are apparent at intakes of 5 to 6 ounces of alcohol per week. ¹⁶ While moderate alcohol consumption is associated negatively with coronary heart disease, excess consumption exerts a significant hyperlipidemic (particularly VLDL) effect in some people.

Plasma cholesterol and triglyceride levels have been shown to decrease as a result of weight loss. The decrement is independent of initial lipid levels.¹⁷

PUBLIC HEALTH AND DIETARY RECOMMENDATIONS

Given that dietary modification can lower plasma cholesterol, the question of the efficacy of making such recommendations to the general public always arises. Approximately six decades of evidence have provided a considerable degree of certainty that the level of plasma cholesterol is determined by the intake of dietary cholesterol, saturated fat, polyunsaturated fat, and calories. The development, progression, and regression of atherosclerosis are related closely to the resultant plasma cholesterol level.

Several carefully controlled dietary studies have been carried out to determine whether or not a modification aimed at reducing plasma lipids will decrease the risk of coronary artery disease. The end result was a lowering of plasma cholesterol in the participants and suggestive, but not unequivocal, reduction in CHD mortality. 18-21 Limitations exist in the interpretation of such data. It is somewhat misleading to relate recent dietary practices to the risk of CHD when development of atherosclerosis occurs over the decades. Multiple unavoidable random errors in the collection of dietary data would lead to underestimation of any relation between nutrients and CHD. Also, these clinical trials may have failed to detect a substantial effect on CHD since they began in adults whose atherosclerosis was advanced and potentially irreversible. Analysis of Framingham data (epidemiological) suggests that reduction of plasma lipids substantially reduced the coronary death rate, but this point has not been proved directly. A definitive study of the effect of diet on the prevention of coronary heart disease has not been undertaken although a preliminary feasibility study was completed.18

In 1971, after a thorough study by the National Heart and Lung Institute Task Force on Arteriosclerosis, the decision was made not to conduct a nationwide, controlled diet study because of design and implementation problems. Instead, the National Heart, Lung, and Blood Institute is conducting several studies that include dietary alterations. Two major clinical trials are ongoing in the United States today: the Multiple Risk Factor Intervention Trial (MRFIT; a modification of diet, smoking, and hypertension) and the Lipid Research Clinic Trial (LRC) which alters diet and adds a cholesterol-lowering drug, cholestyromine.

SUMMARY

Atherosclerosis is a multifactorial disease. There are many theories surrounding its pathogenesis, none of which is more popular than the lipid hypothesis.

WHAT IS YOUR OPINION?*

You Asked For It

FRANK J. PRIMICH, M.D., West New York

fter offering so many unsolicited opinions in past years, the invitation to comment editorially is ir-

resistible.

Your recent editorial suggested four possible topics. Since all were important and interrelated, an opinion on each and an overview of all seem appropriate.

COMPETITION IN MEDICINE

Competition in medicine is a disarming distortion of terminology. Every practicing physician is in competition with every other doctor in his or her area. Availability, compassion, personalized interest, and ability, to the extent that it could be measured or recognized, were assumed to be the major factors, so long as fees were in a reasonable range.

As an obstetrician and gynecologist, my competitors, in addition to my colleagues, include the following:

- 1. Planned Parenthood which, through subsidies, is able to offer routine examinations at no cost or lower cost and contraceptive products at a discount.
- 2. The local HMO which offers second-rate care "free" to its subscribers. The fact that they received start-up grants and unsecured low-interest loans from the federal government makes this somewhat similar to the handicap system in golf. The inept are given an advantage so that they may compete with the more proficient. In the game of life one should not be forced to carry two buckets of sand in the name of fairness. These same HMOs figure prominently in federal procompetition proposals regarding health insurance. Subsidies and preferential legislation give them an unfair and undeserved advantage.
- 3. Hospital Promotional Public Service which offers periodic free screening tests and Pap smears; these impact directly upon the "bread and butter" component of my practice.
- 4. Hospital clinics that charge higher fees to the patients who "cannot afford" to come to me.
- 5. Midwives who are making inroads into the medical field primarily because their care is less expensive. While we are shackled with imposed medicolegal standards that require costly technologically advanced equipment, they are mindlessly blessed for their return to primitive practices.
- Nonmedical experts who spout out of context abstractions from medical journals and unsubstantiated claims for quack procedures. This costs us an occasional patient, but,

more importantly, requires valuable time to deprogram the patient from this ever-increasing torrent of misinformation.

STATE BOARD OF MEDICAL EXAMINERS

The State Board of Medical Examiners originally was composed of appointed physicians whose duty it was to examine prospective licensees and to confirm their paper credentials and character references. It always was implicit that the Board had the authority to suspend or revoke any license it bestowed for due cause. Such action usually was reserved for gross abuses of the ethical or medical standards commonly accepted and expected in the state.

Currently the Board is little more than a professional advisory body to the State Attorney's office. Dictates come forth as proclamations of procedures to be followed, backed by threats of prosecution and revokation of licensure. Harassment over perceived improprieties is becoming commonplace. Mr. Steven Kern's expertise, available through MSNJ, has done yeoman service, but should not lull us into a false sense of security. The battle has just begun.

So long as those who know least about a subject are permitted to make the rules, pass judgment on compliance, and levy penalties, we still are in jeopardy.

GENERIC PRESCRIPTIONS

Generic prescriptions are a good example of the false economy of most mandated cost containment concepts. While there certainly are some generic drugs that might be sustituted without harm, the haste with which some imitations are pushed is hazardous.

The predominant problem is the simplistic assumption that chemical equivalency is synonymous with bio-equivalency. My favorite example is to tell patients that they could suck on a ten-penny nail all day and not help their iron-deficiency anemia one iota. Without adequate proof of comparable effectiveness, it is criminal for bureaucrats to demand substitution in the name of cost saving.

The recent allied offshoot of this type of arrogance is far more disturbing. The FDA has published a huge list of what they term "ineffective medications." Included in this list is just about every commonly prescribed compound. The re-

^{*}We encourage our readers to write opinions on topics of interest. Send your opinion to Editor, *The Journal*, Two Princess Road, Lawrenceville, NJ 08648.

percussions to this idiocy are increasing daily.

Sidney Wolfe, M.D., Ralph Nader's medical advisor, is featured on national television promoting his book that will alert the public to this contrived hazard to their health. The likes of Donnatal®, Nitrobid®, and Actifed® presumably are marked for extinction. His readers will be permitted a life-saving preview so as to protect them from their ill-informed and undereducated family doctor or local specialist.

My request of the major networks for equal time to refute the misconceptions did not even merit the courtesy of a reply. I have seen no response from any responsible spokesman for organized medicine to these ridiculous distortions.

Meanwhile, here at home, the New Jersey State Department of Health once more has seen fit to be first with the worst. They have taken the above-mentioned list and declared that any drug on the list, or chemically similar drugs, shall not be honored for reimbursement to the pharmacist under the Pharmaceutical Aid to the Aged Plan. Druggists are instructed to tell their customers that the drug prescribed for them has been declared ineffective by the FDA. If they have enough money and enough faith in their doctor they still can get the prescription filled at regular retail cost. The promise of PAA was improper, in my opinion, but this twist is obscene.

If this seems incredible to you, simply ask your local druggist. His sad story may give you some solace by comparison.

The issues mentioned, and innumerable others, are destined to bury us and our beloved calling, if we cannot offer a more organized resistance. This brings us to the consideration of so-called organized medicine, or the AMA.

THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association has failed miserably to address or resolve the problems under discussion. After the fact, actions appear weak and self-serving. No reaction implies consent. The slogan should be, "Too little, too late, or nothing at all."

The major problem is big government and the overregulation which it spawns. Any hope of salvation lies in opposing special interest legislation. That opposition, in order to be credible, must be across the board.

We cannot support funding for programs that we perceive as beneficial to our interests or those of the public and oppose only those we find unpleasant. Morality and ethics should not be contingent upon whose ox is being gored.

The AMA has developed a pattern of response to proposed legislation. Almost without exception a bad idea will be resisted initially. Then comes the defeatist concession of inevitability. Next, a "less bad" proposal is offered as a basis for negotiation. Ultimately, the end product is a blend of bad and less bad; we are asked to be grateful that it was not worse.

I have introduced a resolution to the House of Delegates this year recommending that MSNJ investigate the possibility and feasibility of withdrawing from the AMA Federation.

Regardless of the disposition of the resolution, it is my hope that it will at least get the attention of the AMA top brass

A change in policy from conciliatory compromise to principled resistance is the only practical prescription for our survival. If not now, when?

DOCTORS' NOTEBOOK

Trustees' Minutes February 21, 1982

A regular meeting of the Board of Trustees was held on Feburary 21, 1982, at the Executive Offices in Lawrenceville. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows.

Report of the Executive Director . . . (1) MSNJ Membership . . .

a. 1982 Active-Paid Memberships ... Noted an increase in active-paid memberships from 3,846 on January 31, 1982, to 5,002 on February 12, 1982.

Note: Reported Middlesex and Union counties have more than 90 percent of their 1981 active-paid memberships for 1982 and that these two counties probably will surpass 1981 membership levels. Noted that as of February 12, 1982, all but five counties reported greater than

50 percent of their 1981 active-paid memberships for 1982; the five counties reported the following figures:

	1981	1982
Atlantic	201	C
Cumberland	109	C
Hudson	387	157
Mercer	463	180
Ocean	257	98

b. Membership Recruitment Program ... Reported that MSNJ is participating in a recruitment program with the AMA. Also, two special recruitment programs are being undertaken: the recruitment of women physicians in Middlesex County and the recruitment of the physician faculty at UMDNJ.

Note: Two days after a 4,800-piece mailing, 400 letters were returned. This raises the question of the credibility of statistics on the number of practicing physicians and indicates the need to identify and remove duplicate listings in

order to determine the true number of physicians. In addition, 370 physicians responded to the mailing, indicating an interest in membership. Reply cards are being referred to county societies; county societies will be contacted one month after the referral for a status report.

c. Reinstatement of Delinquent Members

... Received a study covering 1979, 1980, and 1981 dues years, disclosing that 118 members out of 303 dues-delinquent members followed a consistent pattern of dues delinquency. Acknowledged present procedure for dealing with the small number of repeat offenders appears adequate. Noted further consideration might be worthwhile at a future date.

(2) New Jersey State Medical Underwriters, Inc.... Reported the following items at the Board of Directors meeting on February 12, 1982:

a. Medical Inter-Insurance Exchange

Are the results of \$100 million worth of government-funded research on hypertension worth reading about?



of New Jersey approved the Underwriter's offer of \$1 and \$2 million umbrella policies over the basic limit policies.

- b. Approved a rate increase of 15 percent.
- c. Retroactive limits up to ten years will be available for physicians who carried less than \$1 million coverage, which means that coverage can be upgraded on an approved scale provided that there are no known and unreported cases; reported cases would be excluded from the policy.
- (3) MSNJ Financial Statements . . . Received and approved financial statements for January, 1982. Analysis showed that the overall performance of the Society is under budget.
- (4) Commissioner of Health ... Noted nomination and appointment of Shirley Mayer, M.D., of Ho-Ho-Kus, as Commissioner of Health for the Kean administration.
- (5) Delegate Absence from Session(s) of House of Delegates ... Agreed that MSNJ should not issue letters of reprimand when delegates do not attend session(s) at the Annual Meeting. Advised by Vincent Maressa that this matter should be the concern of county societies.

University of Medicine and Dentistry of New Jersey . . . Received a report from Stanley Bergen, Jr., M.D., President of UMD. Dr. Bergen commented on two items not in his report:

- 1. Called attention to the difficulty students are facing in obtaining financial aid and noted a significant increase in tuition is probable.
- 2. Hoped that the Committee on Medical Education will continue to consider the issue of foreign medical graduates and noted that MSNJ, the New Jersey Osteopathic Society of New Jersey, the New Jersey Association of Osteopathic Physicians and Surgeons, the State Board of Medical Examiners, the Department of Higher Education, and UMD are working to develop a uniform policy regarding foreign medical graduate programs.

New Jersey Hospital Association ... Noted no report was received from New Jersey Hospital Association this month.

Note: Mr. Scibetta complimented Doctor Watson on his presentation of

MSNJ's position on the selection of a candidate for Commissioner of Health to the Board of Trustees of the New Jersey Hospital Association.

MSNJ Student Association . . .

- (1) Monthly Report ... Received a report from MSNJ Student Association too late for processing and Board review prior to the meeting. Student liaison Charles Spingola commented on the following items:
- a. Reported that the advertisement of the MSNJ Student Loan Program is meager because funds from this source are limited. Noted that if every student in need of additional funds, at a deferred, low rate of interest, applied for a loan, MSNJ could not handle the volume of work.
- b. Requested the Board to authorize expenditure of funds to cover expenses for Jonathan Klein's attendance at the AMA Leadership Conference. No action was taken by the Board upon request.
- c. Requested MSNJ to place an advertisement in the 1982 yearbook of New Jersey Medical School; this was done already—no action necessary.
- d. Submitted the budget for the Student Association to the Committee on Finance and Budget and to the Committee on Medical Education.
- e. Noted membership has remained constant during the past month.

 f. Noted student interest in attending
- f. Noted student interest in attending the 1982 Annual Meeting.
- g. Noted election of 1982-1983 officers will be held in late April or early May.
- (2) Viable Chapter at Rutgers Medical School . . . Noted that Paul Feldan and Peter M. Gottesfeld are trying to establish a viable chapter of the Medical Society of New Jersey Student Association at Rutgers Medical School.

Eye Health Screening Program ... Received and accepted a report indicating that a review of the Eye Health Screening Program was necessary. Noted one problem was the difficulty in appointing ophthalmologists to serve as physicians-in-charge at the screening centers. Saul Tischler, M.D., representing the Academy, mentioned favorable medical and public relations aspects for continuing the program and informed the Board that the problem areas would be considered at the next meeting.

Committee on Medical Education . . .

- (1) Student Financial Aid ... Received reports on student financial aid programs:
- a. Jonathan Klein presented a copy of model legislation proposing a comprehensive state service-option loan program; Mr. Klein would like the proposed legislation rewritten for New Jersey to enable students to get loans while a student and a portion of the indebtedness would be deducted for each year of service in an underserved area.

Approved the motion that students write their own legislative proposal and the Committee would review it.

- b. Mr. Johnson reported that six county societies, two hospitals, and two specialty societies have student loan programs; the programs are restrictive in their regulations.
- (2) Funding for Department of Family Medicine at UMD-New Jersey Medical School . . . Directed that the position of MSNJ in support of the establishment of a Department of Family Medicine at UMD-New Jersey Medical School be maintained and that the Committee on Medical Education be advised to participate in activities, whenever possible, to uphold this position.

Note: Dr. Bergen advised that this has been an ongoing issue with no immediate solution. The dean and faculty at UMD-New Jersey Medical School stated that the main thrust would be education of primary care physicians with a component, not separate, department for family medicine.

JEMPAC ...

- (1) Appointment of the Board of Directors ... Approved the appointment of John W. Holdcraft, M.D., to the Board of Directors of JEMPAC.
- (2) Membership Campaign ... Noted that the Board of Directors of JEMPAC endorsed the idea of a concentrated membership drive to achieve a goal of 1,000 members.

Old Business . . .

- (1) Proposed Amendments to the Bylaws ... Approved the following amendment:
- (e) Alternates

Each delegate may have an alternate. The delegate or an alternate may attend the sessions of the House with full rights as long as he is wearing the proper credential badge. This section also applies to representatives from specialty societies and the Medical Society of New Jersey Student Association pursuant to paragraph (f) below.

(f) Specialty Societies

Each specialty society organized in New Jersey, which is approved by the Board of Trustees of the Medical Society of New Jersey, shall be entitled to 1 delegate and 1 alternate if its membership constitutes at least 200 regular Medical Society of New Jersey members. Specialty societies with fewer than 200 members may, with the recommendation of the Board of Trustees and the approval of the House of Delegates, be seated in conformity with this section. No physician may be considered a member of more than one specialty society for this purpose. The Medical Society of New Jersey Student Association shall be considered a specialty society for the purposes of this section of the Bylaw, and its members as regular members of the Medical Society of New Jersey.

(Italics indicate amendment by the Board of Trustees.)

Note: The amendment was developed through the joint efforts of the Committee on Long-Range Planning and Development and the Committee on Revision of Constitution and Bylaws. A list of those specialty organizations eligible for representation because of this change will be made available for the information of the House of Delegates.

(2) Foundation of the University of Medicine and Dentistry of New Jersey ...

Approved for submission the following resolution:

Resolved, that the House of Delegates urges each and every member of the Medical Society of New Jersey to make a voluntary contribution to the Foundation of the University of Medicine and Dentistry of New Jersey in support of its research programs.

(3) Primary Care Pilot Project for Medicaid Eligibles ... Directed that the Division of Medical Assistance and Health Services be urged to apply for an appropriate waiver because the grant application entitled "New Jersey Medicaid Physician Case Management Demonstration" was not approved.

New Business . . .

(1) Proposal of State Board of Medical Examiners ... Received the following proposal of the State Board of Medical Examiners regarding the reporting of physicians and other professionals violating regulation of practice statutes. Agreed that the following policy format is acceptable as long as it is reasonably applied:

a. For the purpose of rehabilitation of a licensee who voluntarily comes to the Board

and recognizes a problem of impairment by substance abuse or other disability, the Board shall give special consideration in formulating a rehabilitation program to the extent consistent with public health, safety, and welfare.

 b. The Medical Board shall maintain its active and ongoing effort to keep any doctor's public record clear of unofficial material received from consumers raising possibly frivolous or nonmeritorious charges.

c. The Medical Board shall continue its practice of consulting experts and specialists when necessary in particular cases, to insure that an opinion by persons knowledgeable in a given area will be an ingredient in the overall evaluation of a professional's performance.

d. The Medical Board shall continue to issue statements on the outcome of the Board's disposition of a case commensurate with the publicity given the bringing of a complaint.

e. The Board shall continue to observe N.J.A.C. 13:44A-1.5 which sets forth what records shall not be deemed public. That rule provides: "The name of any person providing information to the Attorney General, the director, or a board in good faith shall not be disclosed unless such disclosure is essential to the conduct of a disciplinary proceeding which is conducted pursuant to the act."

(2) American Association of Medical Assistants—State of New Jersey, Inc. . . . Approved for referral to the appropriate

n 1977, when he Veterans Administration compared Step-2 regimens in 450 mild sypertensive patients, which regimen was proven most effective?'



reference committee the following resolution:

Whereas, the American Association of Medical Assistants is not only an outstanding professional organization, dedicated to the education and self-improvement of medical assistants, but is the one and only professional organization endorsed and continuously supported through liaison with organized medicine at all levels; and

Whereas, it is recognized that the loyalty, allegiance, and devotion of the members of this organization to their doctor-employers and to organized medicine in the majority of instances goes well beyond the common grounds of the employer-employee relationship; and

Whereas, the American Association of Medical Assistants is probably the most constant, able, and devoted ally of the medical profession; now, therefore, be it

Resolved, that the Medical Society of New Jersey urge individual physicians to pay the dues of their medical assistants, so that membership in the American Association of Medical Assistants-New Jersey will continue to grow.

- (3) Coalitions for Health Care ... Received as informational a communication from the Executive Vice-President of the AMA urging state, county, and medical specialty societies to establish coalitions for health care to survey the problems related to health care costs, quality of care, and availability and access to proper medical care; the matter is under consideration by the Ad Hoc Committee on Health Care Planning.
- (4) Pamphlet on "Mental Health Problem?" . . . Considered a communication from Harry H. Brunt, Jr., M.D., Chairman of the Council on Mental Health, questioning why he or the Council had not been consulted prior to the publication by MSNJ of a pamphlet and public service television announcement entitled, "Mental Health Problem? -New Jersey's County Mental Health Administrators Can Help You Find Help." The brochure listed county health administrators to contact for appropriate professional services. In addition, objection was made to the placement of psychologists before psychiatrists in reference to accessible mental health services in the pamphlet. Directed that a letter explaining the error made by the Society's staff be sent to the New Jersey Psychiatric Association and also directed that television stations be requested to stop the tapes.

UMD Notes Stanley S. Bergen, Jr., M.D. President

(For this month's column, I have asked Dr. Wen-hsien Wu to discuss the new Pain Center that opened on our Newark campus. Dr. Wu, Director of the Center, is Professor and Chairman of the Department of Anesthesiology, UMD-New Jersey Medical School.)

We are all aware that pain is the most common symptom for which patients seek medical care. The recently opened Pain Center at UMD-New Jersey Medical School, Newark, offers chronic pain sufferers a specially designed, multidisciplinary approach to the diagnosis and treatment of this debilitating problem.

Severe chronic pain affects not only the sufferers themselves, but also has significant impact on the national economy in terms of loss of work force, decreased productivity, and increased medical costs.

A few statistics make this point remarkably clear. An estimated 88 million Americans suffer annually from acute or chronic pain. Fifty million people suffer temporary or permanent physical disability, accounting for the loss of 700 million working days each year and over \$60 billion annually spent on health care, compensation, and litigation.

The Pain Center is a meeting place for pain experts from different medical specialties and a home for innovative methods of therapy, a concept that has evolved over the past 15 years in response to deficiencies in the understanding and treatment of pain. Thus far, there are 36 pain centers in the United States.

After review and examination by the experts, a diagnosis is made. Therapy is aimed at blocking painful stimuli and modifying pain perception. Surgery is considered only as a last resort. Treatment modalities include acupuncture, electro-acupuncture, thermo- and cryotherapies, nerve blocks, transcutaneous electrical nerve stimulation (TENS), biofeedback, hypnosis, counseling, group therapy, and behavior modification. In addition, a new potential treatment-perhaps its first application in the United States-is photobiostimulation. Sometimes referred to as laser acupuncture, this method of pain control now is under investigation by our Department of Anesthesiology. Laser treatment especially is promising since it entails no discomfort, little inconvenience, and particularly would be suitable for children.

The goal for the Pain Center is to make chronic pain sufferers functional again by eliminating or reducing the intolerable pain and to return them to work, normal family life, and activities.

The following case studies illustrate the achievements of the multidisciplinary approach at the Pain Center

Dr. Jerome Stenz, a 63-year-old dentist, serves as a classic example. In 1968, Dr. Stenz injured his back. He suffered excruciating back pain radiating to both legs and feet. He underwent two operations for herniated discs, took vast amounts of medications, visited a number of health professionals, underwent months of physical therapy, and wore a variety of support belts and garments.

Unable to tolerate sitting and standing, he was incapable of practicing his profession. While hospitalized last year, an anesthesiologist told Dr. Stenz of the Pain Center at UMD-New Jersey Medical School, Newark.

Thanks to a series of acupuncture and stimulation treatments that reduced his pain to about 10 percent of its pre-Pain Center level, Dr. Stenz once again is able to practice dentistry and even enjoys an occasional ski trip.

Tom Intille, 38, is another Pain Center success story. He underwent three operations for herniated discs without adequate pain relief. At a previous level of nine on a pain scale of zero to ten, Mr. Intille now rates his pain at a tolerable two, thanks to his battery-powered, belt-mounted TENS unit, a device equipped with skin electrodes attached to his back. A dial on the unit allows him to adjust the electrical current required to produce pain relief.

Patients referred to the Pain Center require extensive medical workups and testing. All previous medical records are collected to avoid duplication of efforts and costs. This assists us in directing patients as rapidly as possible to appropriate specialists at the Center for establishing a diagnosis and therapeutic plan.

MSNJ Auxiliary Phyllis Romano President

Our foremost concern this past year was a strong link of communication between the Medical Society of New

Jersey and the Auxiliary as well as between the county medical societies and their auxiliaries. Our theme for 1981-1982, "Medical Society of New Jersey-Auxiliary: Partners-Our Future," became a reality with the appointment of Auxiliary members to councils and committees. Auxiliary members enthusiastically attended their respective council and committee meetings and had input in the proceedings. Presidents and/or representatives of county medical auxiliaries attended county medical societies' executive board meetings. Many of the county auxiliaries now are having joint meetings with their medical societies in the way of dinners, scientific sessions, and special

I have attended Medical Society of New Jersey Board of Trustees' monthly meetings, as well as meetings of the Long-Range Planning Committee, the Council on Medical Services, and the Committee on Revision of Constitution and Bylaws. I have attended joint meetings of the county medical societies and their auxiliaries presenting the AMA Auxiliary slides and accompanying talk. I have visited 16 county auxiliaries to keep our line of communication alive.

Auxiliary activities this past year have been varied and numerous. Membership has been our foremost obstacle. When this administration assumed office in May, 1981, there were four auxiliaries with no officers for the coming year, and one disbanded auxiliary. We were able to reorganize one of the auxiliaries and now the members are very active. However, in spite of all of our efforts, the other three auxiliaries-Hunterdon, Monmouth, and Morris-joined Cumberland in disbanding, causing a decline in membership. However, the State Auxiliary Office sent dues notices to these disbanded auxiliaries, and we acquired 150 members-at-large.

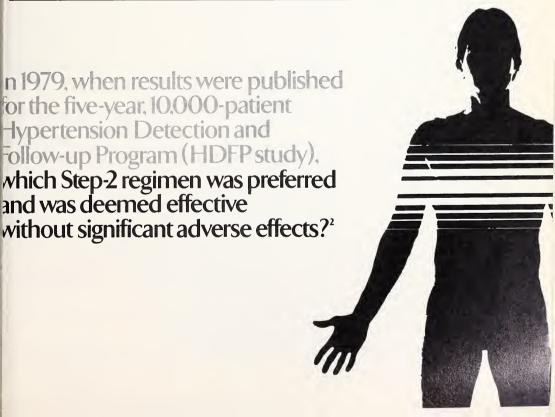
Upon recommendation of the Long-Range Planning Committee, the state has been divided into regions for the purpose of increasing membership. Names of resident physician/medical student spouses and housestaff physicians at the University of Medicine and Dentistry of New Jersey, as well as their various hospitals, were sent to all county auxiliaries with the request to hold a special event geared towards this group. We must continue to attract residents, medical students, housestaff physicians, and their spouses as they are the future

leaders of the Medical Society and the Auxiliary.

County auxiliaries participated in a statewide eye health screening program conducted at various hospitals throughout the state; eyeglasses were collected for the New Eyes for the Needy; medical supplies were collected, and one county shipped 600 medical books to India and Japan; and nearly every county auxiliary held a health day emphasizing shape up for life, mental health, or stress. Health packets were distributed in the main public libraries for reading and viewing by the public.

Since our own Dr. James S. Todd of Bergen County is Vice-President of AMA-ERF for 1981-1982, we had hoped to make this a banner year insofar as the New Jersey contribution to this very important project was concerned. Our travelling AMA-ERF Committee carried their sales boutique to county auxiliary luncheons, meetings, dinners, and special affairs. Our total contribution as of March 15, 1982, was \$8,620.26 and the money has been sent to the National Auxiliary (with the major part of the contribution forthcoming in the final months).

The Medical Society of New Jersey



requested that the Medical Student Loan Fund be our priority project for the year. County auxiliaries have been raising money through various means, i.e. international luncheons, house touring, dinners, boutiques. On the state level, a tote bag was designed with the words "Garden State of New Jersey"; the state bird, the eastern goldfinch; the state flower, the purple violet; and the red oak tree, imprinted on it. The tote bag will be sold in gift shops and hospitals, with the proceeds benefiting the Medical Student Loan Fund. This project will be an ongoing yearly fundraiser, and the bag is planned to appeal to everyone.

To increase the auxiliary involvement in legislative and political action, the auxiliaries worked through their county societies assisting the Medical Society and JEMPAC in acquiring the state and federal voting districts of the physician members of the Medical Society of New Jersey; this will be of benefit to the Society in the support of proposed legislation for the betterment of quality health care.

A legislative newsletter incorporating what we should know about funding cutbacks, competition, federal health options, HMO financing, utilization review program, health programs, and budget battles has been sent to county presidents and legislation chairmen. The Legislation Chairman planned a twoday bus trip to Washington, DC, visiting the White House, the House and Senate in session, the Japanese Embassy, the Kennedy Center, and the Food and Drug Administration. We were updated on Washington events and the National scene by Representative Marge Roukema and John Mahoney, AMA lobbvist.

The second annual leadership confluence, consisting of roundtable discussions on nominations, membership, leadership, public speaking, and parliamentary procedure was held March 1, 1982, and was very successful and received enthusiastically.

There were numerous meetings attended by committees and committee chairmen throughout the year, as well as out-of-state meetings. The President, representing New Jersey, attended the state Auxiliary annual meetings of Virginia, Pennsylvania, California, and Maryland; the AMA Auxiliary regional cluster and leadership confluence meetings in Chicago; and the AMA leadership confluence.

On the national scene, the Medical Society of New Jersey Auxiliary, for the

first time in many years, did not have representation on the AMA Auxiliary Board of Directors this past year. However, this will be rectified this coming year as appointments of past state presidents have been made to the Bylaws Committee and to AMA-ERF. I was appointed to serve on the Health Reference Committee at the annual meeting in June in Chicago.

The achievements and accomplishments of the Auxiliary this past year have been the result of a mutual effort. The Auxiliary belongs to its members—your spouses. Therefore, responsibility for the health, growth, and general welfare of the Auxiliary is shared by all members, and does not rest solely with the officers. Leadership is temporary at best. One leader soon replaces another. The responsibility for continuity lies with the total organization. If all members—all spouses—are involved, the Auxiliary will be strong and viable.

The New UMD*

The University of Medicine and Dentistry of New Jersey (UMD)—formerly the College of Medicine and Dentistry of New Jersey—came into being on December 10, 1981, when Brendan T. Byrne signed into law legislation granting university status and increased operating autonomy to the statewide health sciences institution. Now, as the state's second public university, UMD will continue to develop its programs in health sciences education, research, and health services at its six schools.

FACILITIES

The UMD-Rutgers Medical School in Piscataway will gain a new clinical science campus at Middlesex General Hospital, the school's core teaching hospital, in neighboring New Brunswick. A Medical Education Building, housing clinical faculty offices, research laboratories, teaching and conference areas, and a medical library, will be dedicated as part of the new \$60 million complex.

In Camden, construction will continue this year on a \$9 million Education and Research Center for the UMD-New Jersey School of Osteopathic Medicine and the UMD-Rutgers Medical School at Camden. Faculty and administrative offices, research laboratories, and classrooms will be housed in the new facility.

Construction of the \$3 million Cancer Research and Treatment Center on the University's Newark campus is expected to be completed by the end of the year. The center will be the first of its kind in the state, offering a multidisciplinary approach to cancer care, while emphasizing research and education. An especially significant feature will be the state's most powerful linear accelerator, an instrument capable of direct irradiation of tumors without damaging healthy surrounding tissue.

PATIENT SERVICES

A statewide perinatal center has been established in Newark under the direction of the UMD, offering the most specialized obstetric services in New Jersey for mothers and newborns considered at risk. The program is expected to grow considerably this year. The increased specialization in obstetrics/gynecology at the hospital also is reflected by a program in fetoscopy—one of only a few in the nation—involving the ability to visualize fetal defects that cannot be detected through ultrasound or amniocentesis procedures.

Another recent designation for the UMD-College Hospital was the Regional Trauma Center, one of only two such facilities statewide to care for the most severe cases of injury with a team of specially trained emergency medical personnel. This spring, as part of the project, UMD-College Hospital initiated its own Mobile Intensive Care Unit (MICU), staffed by paramedics trained to perform lifesaving procedures at the scene of injury and en route to the hospital.

At the UMD-New Jersey Medical School in Newark, important growth is anticipated this year in the Toxicology Laboratory, where pharmacologists use the most elaborate monitoring and analytical equipment to scan human blood and tissue for as many as 200 different chemicals. By April, the laboratory's poison detection and therapeutic drug monitoring services will be made available around the clock.

This year the UMD-New Jersey Medical School will provide patient services through a Pain Center, a multidisciplinary approach to diagnosing and relieving pain, and the Urodynamics Laboratory, a facility staffed and equipped to diagnose the most puzzling cases of urinary dysfunction and related conditions.

^{*}From UMD and the Star Ledger Outlook

An innovative Occupational and Environmental Medicine Clinic has been launched by the UMD-Rutgers Medical School in Piscataway. Based at Middlesex General Hospital, the clinic is available for the examination and treatment of patients who suspect they have been exposed to dangerous chemicals and similar substances whether on the job or in the environment.

The Reading Disabilities Research Institute is another program based at UMD-Rutgers Medical School. A variety of studies are underway to determine new diagnostic and therapy procedures for reading disabilities in children called dyslexia.

At UMD-Rutgers Medical School's Laurie Neurodevelopmental Institute, based at Middlesex General Hospital, new therapy programs for infants and toddlers will be introduced to complement ongoing services to youngsters with developmental, behavioral, or neurological difficulties. The Institute, which stresses early intervention, diagnosis, and treatment, consists of the Child Evaluation Center and Child Developmental Center staffed by a team of pediatricians, pediatric neurologists, social workers, occupational therapists,

physical therapists, speech therapists, psychologists, dentists, and child psychiatrists.

RESEARCH

At the UMD-Rutgers Medical School, the recent completion of a \$100,000 Biohazards Laboratory will enhance research in the basic sciences, permitting additional studies of viruses, human tumors, and environmental carcinogens. Other research projects at the school involve DNA research into bone disease and cancer, and studies of heart disease and diabetes.

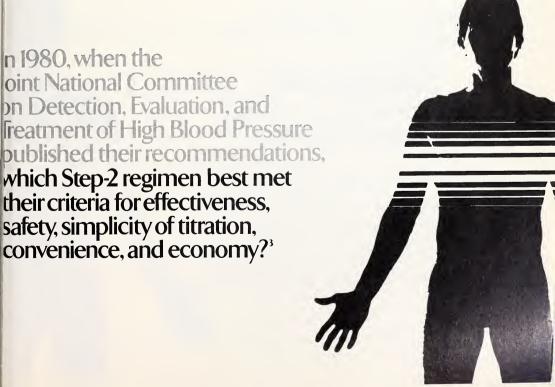
The regeneration of human ligaments and tendons and the use of a laser for acupuncture and surgery reflect some of the innovative research continuing this year at the UMD-New Jersey Medical School. Nearly all of the school's 300 faculty are involved in research, much of it centering on cancer and heart disease. Glaucoma, multiple sclerosis, and the process of aging are among the many other areas of interest to be explored this year by scientists at the school.

Research into a new vaccine to protect children against bacterial meningitis is being performed by faculty of the UMD-New Jersey School of Osteopathic Medicine. Ultimately, it is believed such a vaccine will be effective in preventing other childhood ailments.

EDUCATION

The UMD-School of Allied Health Professions in Newark, already operating 14 allied health programs, will initiate two new offerings in 1982. About 100 students will be enrolled in a two-year nursing program in September in a cooperative venture with Essex County College. A cooperative baccalaureate program in toxicology, in conjunction with Montclair State College, also is expected to accept its first students.

The growing concern with occupational and environmental hazards has led to the development of a joint UMD and Rutgers University Ph.D. program in toxicology. Initiated in 1981, the program already is among the largest of its kind in the nation in terms of registered graduate students and a faculty drawn from both universities and private industry. The Department of Pharmacology on the Newark campus offers a master's degree program in toxicology



cooperatively with the New Jersey Institute of Technology.

Expanded programs for treating geriatric patients and the emotionally disturbed are being developed at the UMD-New Jersey Dental School in Newark. Also underway is a course of study for dental auxiliaries—provided at the dentist's private office—to enhance the efficiency and range of service of the dental assistant working alongside the dentist.

Physician Study

The Office of Medical Education of Jefferson Medical College, Thomas Jefferson University, is undertaking a study of the major problems and concerns of Filipino and Iranian physicians in the United States. The Office of Medical Education is planning to mail 5,500 questionnaires to Iranian and Filipino physicians throughout the United States in an effort to collect information for this report. There is a substantial number of physicians from these countries residing and practicing in New Jersey; the results of the survey will be of interest to all physicians.

A preliminary study has been conducted to identify the items that should be included in the major survey; 22 Filipino and 23 Iranian physicians were interviewed relative to factors affecting career decisions, problems, concerns, and suggestions for alleviating the problems they faced.

The major factors pulling Filipino and Iranian physicians to New Jersey and to the United States were the high reputation and prestige of American medical education and the relative ease of being accepted into a residency program; financial support and stipends available in the United States were other incentives for coming. This positive attitude coupled with the opportunity for practice and the luxuries of the American economy encouraged physicians to stay permanently in the United States.

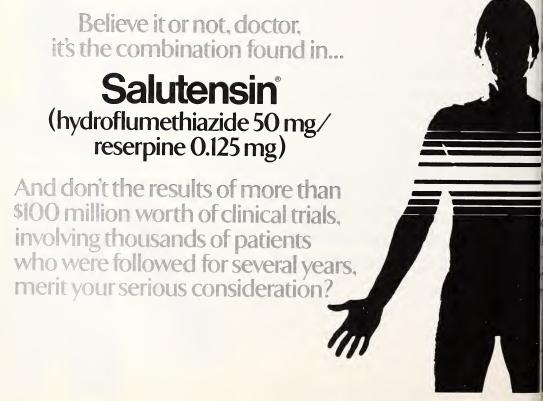
On the other side of the coin, there was a substantial number of negative factors affecting Filipino and Iranian physicians. A majority of the Iranian physicians indicated that linguistic difficulties were one of the major problems. Physicians from both countries expressed the belief that they suffered from discrimination; these doctors perceived this discrimination to a greater extent on

the part of nurses, administrators, patients, and other physicians.

Some of the physicians indicated problems in finding training programs or positions in the specialties in which they were trained or interested; ophthalmology and plastic surgery were two such fields.

Certain aspects of the qualifying examinations required for foreign medical graduates posed problems or were considered inequitable by many of the respondents. Some physicians found it difficult to pass examinations on the basic medical sciences that they studied many years ago, and others criticized the emphasis on basic sciences in the United States. The ECFMG examination and the Federal Licensing Examination (FLEX) were considered to be reasonable, but the Visa Qualifying Examination (VQE) was viewed by a large number of interviewees as designed to prevent foreign physicians from entering the United States, rather than to evaluate their qualifications.

Data from the larger sample will be available in the coming months; this information should help determine the interests and problems of Iranian and Filipino physicians in New Jersey.



William McGuire Appointment

The Passaic County Medical Society announced the appointment of William T. McGuire, of Rutherford, as its Executive Director. He comes to the Society from Coler Memorial Hospital, New York, where he was Assistant Hospital Director for patient advocacy.

"The Society is fortunate in acquiring as Executive Director a person with Mr. McGuire's unique and extensive experience in the administrative area of the health, hospital-medical field," said Dr. Paul Steinlauf, President of the Society.

As Executive Director, McGuire will participate in the formulation of society policies and in directing and effectuating these policies in the varied activities of the organization, which comprises approximately 700 physicians serving the Passaic Valley area, along with its seven hospitals.

McGuire was granted the degree of M.P.A. in Health Administration by Rutgers University, Newark, having been graduated with a B.A. degree from Seton Hall University in South Orange.

Born in Newark, McGuire has served as Director of the Department of Health

Affairs for Catholic Community Services of Newark, and as Director of the Department of Pastoral Care at Holy Name Hospital, Teaneck.

McGuire is a member of the American Hospital Association, the Catholic Health Association, the New Jersey Hospital Association, and the Society of Patient Representatives. He holds New Jersey licensure as a nursing home administrator.

The Veterans of the Vietnam War would like to contact physicians who served in Vietnam from 1961 to 1971 for a two-fold purpose: to better educate physicians about the presenting symptoms, diagnosis, and potential treatment of veterans exposed to Agent Orange, and to gather information on physicians who served in Vietnam.

For further information, call VVW Board Member, Dr. Paul Scipione, at his office, (609) 921-3333, or write to Veterans of the Vietnam War, 914 Kennedy Blvd., Manville, NJ 08835.

Physicians and Agent Orange

Are you a physician who served in Vietnam? If you are, the Veterans of the Vietnam War would like to hear from you. The VVW are planning a special workshop on health problems associated with exposure to Agent Orange and dioxin.

Dioxin, a potentially harmful substance, was present in the herbicide known as Agent Orange. Many servicemen were exposed to dioxin because of the spraying used extensively in Vietnam to defoliate the jungle.

Hemodialysis Annex

Muhlenberg Hospital formally dedicated its newly completed Alfred J. Bertolotti Memorial Hemodialysis Annex last month. The annex was designed as an expansion for the already existing regional hemodialysis unit. The addition will provide much needed space for ongoing dialysis services and also it will create an area where patients can undergo home and self-care training for hemodialysis.

nd there's more proof on the way!

32 will see the completion of the Multiple Risk ctor Intervention Trial (MRFIT)—a six-year, 000-patient study assessing the factors that rease risk of cardiovascular disease. For the magement of hypertension, the preferred p-2 regimen in this study is reserpine-thiazide.

1978, in a preliminary report presented to the idemiology Section of the American Heart sociation (Dallas, Nov 1978), after 12 months the trial, fewer patients (5.3%) treated with erpine suffered depression than even the treated control group (7.7%)!

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11/81

see references and brief summary of prescribing information on last pages of this advertisement.

The new unit, costing approximately \$100,000, was named after one of the original founders of the Kidney Fund of New Jersey, a former dialysis patient at Muhlenberg Hospital. The Kidney Fund of New Jersey helped subsidize the cost of the expansion by donating a check for \$50,000 to the hospital.

The annex will be headed by Anthony Donatelli, M.D., Chief of Nephrology, and a member of our Union County component.

During the past ten years, Muhlenberg Hospital has treated over 800 patients with kidney disease from Union, Somerset, Middlesex, and Hunterdon counties.

Public Health

The Council on Public Health is undergoing reorganization. Any members, auxiliary members, or other persons with a deep concern for the issues of public health in New Jersey, who are willing to serve on our task forces, please contact Henry A. Katz, M.D., 3699 Route 46, Parsippany, NJ 07054.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY-David C. Lung, M.D., 273 Sunrise Blvd., Williamsville, NY 14221. China Medical (Taiwan) 1974. Board eligible. Group or partnership. Available July 1982.

Kung-Ho Liu, M.D., 1935-27C Eastchester Rd., Bronx, NY 10461. National University (Taiwan) 1964. Board eligible. Group, partnership, solo. Available July 1982. S.K. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Partnership or group. Available.

CARDIOLOGY-Gerald I. Myers, M.D., 6324 Alderson St., Pittsburgh, PA 15217. Temple 1976. Also, general internal medicine. Board certified (IM). Group or partnership. Available.

N. Iyengar, M.D., 142 Hawkins Ave., Parsippany, NJ 07054. Mysore (India) 1971. Group, partnership, single, multiple specialty. Available.

V. Srinivasan, M.D., 353 E. 17th St., Apt. 22A, New York, NY 10003. Madras (India) 1975. Board certified (IM), Solo, group, partnership, other. Available July 1982.

Walter P. Paladino, M.D., 163 Carr St., Providence, RI 02905. Einstein 1977. Also, general internal medicine. Board certified (IM). Group or partnership. Available July

Mohammad Riaz, M.D., 853 Avenue Z, Brooklyn, NY 11235. Khyber (Pakistan) 1971. Board eligible. Group or partnership. Available July 1982.

Narendra T. Agrawal, M.D., 502-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Also, general internal medicine. Board eligible. Associate, partner, hospital-based clinic. Available.

FAMILY MEDICINE-Leslie Lynn Pawson, M.D., 19236 Bryant St., Apt. 13, Northridge, CA 91324. McMaster (Canada) 1979. Board eligible. Group. Available August 1982.

GASTROENTEROLOGY-Mathew K. Kandathil, M.D., 94 Village Lane, Branford, CT 06405. Grant (India) 1974. Also, general internal medicine. Board certified (IM). Group, partnership, associate. Available July 1982.

Muhammad A. Nyazee, M.D., 1650 Selwyn Avenue, Bronx, NY 10457. Also, general internal medicine. Board certified (IM). Solo/group practice, partnership, academic (gastroenterology). Available.

Salutensin® Salutensin-Demi™

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Brief Summary of Prescribing Information (12) 10/27/78

For complete information consult Official Package Circular.

WARNING

This fixed combination drug is not indicated for initial therapy of hypertension. Hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension is not static, but must be reevaluated as conditions in each patient warrant.

CONTRAINDICATIONS

Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.

WARNINGS

Small-bowel lesions (obstruction, hemorrhage; perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or

without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients.

Use in Pregnancy

Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.

PRECAUTIONS

Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokalemia

(especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss may cause digitalis intoxication. Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease or bronchial asthma and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available July 1982.

INTERNAL MEDICINE—Jitendra C. Shah, M.D., 288 Bay 38th St., 6D, Brooklyn, NY 11214. Seth G.S. Medical (India) 1974. Subspecialty, pulmonary medicine. Board certified (IM). Hospital-based or group. Available July 1982.

N. Iyengar, M.D., 142 Hawkins Ave., Parsippany, NJ 07054. Mysore (India) 1971. Subspecialty, cardiology. Group, partnership, single, multispecialty group. Available.

V. Srinivasan, M.D., 353 E. 17th St., Apt. 22A, New York, NY 10003. Madras (India) 1975. Subspecialty, cardiology. Board certified (IM). Solo, group, partnership, other. Available July 1982.

Linda S. Alexander, M.D., 3901 Conshohocken Ave., Apt. #277, Philadelphia, PA 19131. Hahnemann 1978. Group, partnership, HMO. Available July 1982.

Krishan M. Mathur, M.D., 64-B Brighton Court, Brooklyn, NY 11235. SMS Medical, Jaipur (India) 1976. Board eligible. Group or partnership. Available July 1982. Arthur C. Tutela, M.D., 132 Midland Place, Newark, NJ 07106. Bologna (Italy) 1974. Also, general medicine. Group, partnership, clinic, institution. Available.

Muhammad A. Nyazee, M.D., 1650 Selwyn Ave., Bronx, NY 10457. Nishtar (Pakistan) 1974. Subspecialty, gastroenterology. Board certified. Solo/group practice, partnership, academic (gastroenterology). Available July 1982.

Thomas A. Neef, M.D., P.O. Box 3249, York, PA 17402. Georgetown 1975. Board eligible. Solo, associate, group. Available. Harry N. Brandeis, M.D., Ten Overlook Rd., Apt. 51, Summit, NJ 07901. Bologna (Italy) 1979. Board eligible. Group, partnership, solo. Available July 1982.

Narendra T. Agrawal, M.D., 503-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Subspecialty, cardiology. Board eligible. Associate, partner, hospitalbased clinic. Available.

Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Subspecialty, pulmonary medicine. Group or solo (hospital-based). Available July 1982.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available July 1982.

Melvin Polkow, M.D., 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Subspecialty, pulmonary medicine. Board certified (IM). Group, partnership, hospital-based. Available July 1982.

Steven Fischkoff, M.D., 6792 Pyramid Way, Columbia, MD 21044. Pennsylvania 1976. Subspecialty, oncology. Board certified (both). Group, partnership. Available July 1982.

Frank Gentile, M.D., 2116 Trail 2, Apt. 9-K, Burlington, NC 27215. Bologna (Italy) 1973. Subspecialty, hematology and oncology. Solo or partnership. Available.

S. Srinivas, M.D., 7859 Riverdale Rd., Apt. 103, New Carrollton, MD 20784. Gandhi (India) 1973. Subspecialty, gastroenterology. Board certified. Solo, partnership, single-specialty group. Available July 1982.

OBSTETRICS/GYNECOLOGY—Yvonne S. Thornton, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/fetal medicine. Board certified (both). Partnership or group (single specialty), Morris or Middlesex counties preferred. Available August 1982.

Ibrahim Beruti, M.D., 1236 Napoleon St., Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified. Solo. Available.

Gary S. Rosenberg, M.D., 245-20 Grand Central Parkway, Bellerose, NY 11426. SUNY-Downstate 1977. Board eligible. Group or partnership. Available.

Gary C. DeGrande, M.D., 201 Seeley Road, Apt. H-3, Syracuse, NY 13224. Guadalajara (Mexico) 1977. Board eligible. Private group practice. Available July 1983.

Judith A. Scheraga Stavis, M.D., 16 Everett Rd., Demarest, NJ 07627. Cornell 1972. Board certified. Group partnership, hospital, ambulatory clinic. Available.

ADVERSE REACTIONS

Hydroflumethiazide

Skin-rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation.

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USUAL DOSE

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Bottles of 100 and 1000 scored 50 mg. tablets.

References:

- Propranolol in the treatment of essential hypertension. Veterans Administration Cooperative Study Group on Antihypertensive Agents. JAMA 237:2303-2310, 1977.
- Five-year findings of the hypertension detection and follow-up program: I. Reduction in mortality of persons with high blood pressure, including mild hypertension. Hypertension Detection and Follow-up Program Cooperative Group. JAMA 242:2562-2571, 1979.
- 3. The 1980 Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. Arch Intern Med 140:1280-1285, 1980.

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OPHTHALMOLOGY—Florence S. Lee, M.D., 676 Kent Ave., Teaneck, NJ 07666. SUNY-Downstate 1976. Board certified. Partnership or group. Available.

Shearwood J. McClelland, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia Physicians and Surgeons 1974. Board certified. Partnership or group. Available January 1983.

Michael Hostovsky, M.D., 4100 West 36th St., Minneapolis, MN 55416. Hadassah (Israel) 1972. Also, neuro-ophthalmology. Board eligible. Single or multispecialty group. Available September 1982.

OTOLARYNGOLOGY-Arnold I. Charow, M.D., 6 Country Club Drive, Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.) Avail-

Richard G. Shiffman, M.D., 8101 Camino Real, Suite C-318, Miami FL 33143. Tufts University. Board eligible. Group or partnership. Available July 1982.

PATHOLOGY-Vasundhara G. Untawale, M.D., 281 Farmingdale Rd., Wayne, NJ 07470. India 1972. Board eligible. Hospital. Available July 1982.

Parbati Basu, M.D., 3400 Henry Ave., Philadelphia, PA 19129. N.R.S. (India) 1975. Board eligible. Any type practice. Available July 1982.

Donald J. MacPherson, M.D., 3 Highview Dr., Livingston, NJ 07039. Vermont 1948. Board certified (AP, CP, RP). Available.

PEDIATRICS—Daryl H. O'Brien, M.D., 2808 Omah St., Durham, NC 27705. Dartmouth 1979. Board eligible. Group or partnership. Available July 1982.

Yashaswini H. Shah, M.D., 165 Lynch Rd., Middletown, NJ 07748. M.S. University (India) 1974. Board eligible. Group, partnership, solo. Available.

B. R. Prasad Achanti, M.D., #310, 11135-83 Ave., Edmonton, Alberta, Canada 6G-2C6. Guntur Medical College (India) 1975. Board eligible. Available July

Jogesh Dugal, M.D., 135-17 Coolidge Ave., Kew Gardens, NY 11435. Lady Hardinge (India) 1970. Special interest, child development. Board eligible. Group, partnership. Available August 1982.

PULMONARY DISEASES-Somnath N. Naik, M.S., 288 Bay 38 St., Apt. 5-U, Brooklyn, NY 11214. Seth G.S. (India) 1976. Also, general internal medicine. Board certified (IM). Any type practice. Available July 1982

Jitendra C. Shah, M.D., 288 Bay 38th St., 6D, Brooklyn, NY 11214. Seth G.S. Medical (India) 1974. Board certified (IM). Hospital-based or group. Available July 1982. Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Also, general internal medicine. Group or solo, hospital-based. Available

Melvin Polkow, M.D. 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Also general internal medicine.

July 1982.

Board certified (IM). Group, partnership, hospital-based. Available July 1982,

RADIOLOGY-Stephen Phillip Laufgraben, M.D., 19 Poplar Ave., Wheeling, WV 26003. University of Arkansas (1973) Board certified. Single specialty group, hospital-based, private. Available.

SURGERY, GENERAL-Robert C. Kahn, M.D., 2516 North 4th St., Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available July 1982. Lawrence W. Silvers, M.D., 1350 West Bethune Ave., Apt. 2002, Detroit, MI 48202. Albany 1976. Also, vascular surgery. Board eligible. Group or partnership, with medical school affiliation. Available July 1982

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Milan (Italy) 1972. Also colon and rectal surgery. Group or partnership. Available July 1982.

SURGERY, ORTHOPEDIC-Mark M. Kramer, M.D., 3450-12 Wayne Ave., Bronx, NY 10467, Vanderbilt 1976, Board eligible. Private practice. Available.

SURGERY, PLASTIC-Parvaiz A. Malik, M.D., 5088 Clayridge Dr., Apt. 214, St. Louis, MO 63129. Dow (Pakistan) 1972. Solo, group, partnership. Available July

SURGERY, VASCULAR-Ahmed I. Khan, M.D., 5627 North 16th St., Apt. H-8, Phoenix, AZ 85016. Dacca (Bangladesh) 1972. Also, general surgery. Any type practice. Available.

Lawrence W. Silvers, M.D., 1350 West Bethune Ave., Apt. 2002, Detroit, MI 48202. Albany 1976. Also, general surgery. Board eligible. Group or partnership, with medical school affiliation. Available July 1982.

UROLOGY-Dilip R. Patel, M.D., 483 Ocean Parkway, Apt. 4-B, Brooklyn, NY 11218. Baroda (India) 1973. Board eligible. Any type practice. Available.

Alexander M. Pagnani, M.D., 3510 Avenue H, Apt. 2-B, Brooklyn, NY 11210. Guadalajara (Mexico) 1976. Board eligible. Any type practice. Available July 1982.

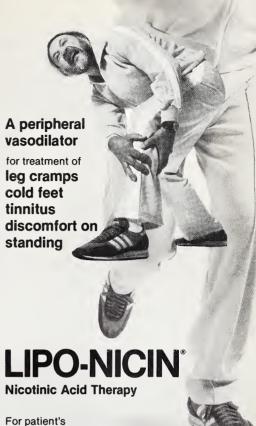
Ramesh K. Chopra, M.D., 1920 S. First St., Minneapolis, MI 55454. Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available August 1982

Frederick Greenstein, M.D., 732 E. 91st St., Brooklyn, NY 11236. SUNY-Downstate 1972. Board eligible, Group, partnership, academic, solo. Available July 1982.

Tung-Hua Chieng, M.D., 190 Mineola Blvd., Apt. 4-N, Mineola, NY 11501. Taiwan 1973. Board eligible. Group, partnership, solo. Available July 1982.

H.S. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Group, partnership, solo. Available July 1982.

Jacob Heyman, M.D., 271 Avenue C, Apt. 5-F, New York, NY 10009. Haifa (Israel) 1975. Board eligible. Solo, partnership, single or multispecialty group. Available July 1982



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Pseudodigitation in Ectopic Ossification

February 13, 1982

Dear Dr. Krosnick:

I read with interest the paper by Gould et al. in the February issue of The Journal, reporting "pseudodigitated" ectopic ossification (EO).1 The radiologic impression of actual structure in cancellous bone, however, will have to await anatomic verification. Such lamellar EO is common in chronic venous insufficiency (CVI).2 In our peripheral vascular clinic, we have seen more than 500 cases following the first description.3 These include 50-plus cases with massive subcutaneous bony metaplasia as well as more cases with small-bone foci or plates so thin that only palpation discovered them and not routine roentgen films. On film, when at least 2 mm thick. they often are misdiagnosed as phleboliths or as dystrophic calcification. They are of clinical interest since CVI-induced leg ulcerations in EO areas heal with difficulty and recur.

While I cannot satisfy the authors' ambition to understand the exact mechanism of EO (or of anything living), EO starts with bone collagen laid down in edematous areas of fat tissue in which fat cells (undifferentiated as they are) become fibroblasts; with a concentration of Ca and phosphate in solution (ionized?) in these areas-indicated by Sr85-uptake studies4-they become phosphatase positive, resembling or representing osteoblasts. Bone is laid down swiftly, in hours and days, not as presumed in the article in weeks or longer. The deposition of hydroxy-apatite or octocalciumphosphate into the collagen molecule seems to be a physicochemical, nonvital process.5 The subsequent formation of Haversian canals, the restructuring of the early reticulated collagen into lamellar ground substance (in weeks or longer) the stress-and-strain rearrangements of bone, and the appearance of fatty—and rarely even bone—marrow remain unsolved riddles.

The quoted EO in paraplegics, hemiplegics, after poliomyelitis, rheumatoid arthritis, and even in myositis ossificans may be based upon similar mechanisms.⁶

Research in this area, highly overdue, will reveal insights into osteogenesis, fat tissue function, connective tissue metabolism, and the role of some hormones in osteoblastic and osteoclastic activities.

(signed) Heinz Lippmann, M.D.

- 1. Gould L et al.: Pseudodigitation in ectopic ossification. *J Med Soc NJ* 79: 131-133, 1982.
- 2. Lippmann HI, Goldin R: Subcutaneous ossification of the legs in chronic venous insufficiency. *Radiol* 74:279-288, 1960.
- 3. Lippmann HI: Subcutaneous ossification in chronic venous insufficiency. *Angiol* 8:378-396, 1957.
- 4. Lippmann HI: Unterhautverknoecherungen als metaplastische manifestations form der chronisch-venoesen insuffizienz. Forum Medici 14:41-47, 1971.
- 5. Glimcher MJ: Molecular biology of mineralized tissues with particular reference to bone. *Rev Mod Phys* 31:359, 1959.
- 6. Lippmann HI: Heterotopic ossification: A problem in rehabilitation medicine. Arch Phys Med Rehab 41:351-353, 1960.

March 1, 1982

Dear Dr. Krosnick:

We appreciate the comments of Dr. Lippmann and the close attention he has given to our article in the February issue of *The Journal*.

We share his opinion that the exact mechanism of ectopic ossification remains an unsolved riddle, and what we offered in the discussion section of our manuscript was a description of the prevailing consensus of the process by which ectopic ossification occurs.

Our observations have been radiographic ones, and it is indisputable that the x-rays of these patients demonstrated bone formation, with cortex, medulla, and joint space being present; hence, the coined phrase "pseudodigitation." Anatomic verification was not possible in our case material since the patients were asymptomatic and exploration for even biopsy purposes could not be justified.

It was our purpose in this publication to bring this unusual entity to the attention of the readership, to stimulate curiosity in those whose interest is bone radiology/pathology, and, hopefully, to elicit from those professionals who encounter similar examples, a response so that they may wish to present their case material.

(signed) Lawrence Gould, M.D.

1. Gould L, Shah JM, Patel M, Curtis FT: Pseudodigitation in ectopic ossification. *J Med Soc NJ* 79:131-133, 1982.

Organized Medicine

March 4, 1982

Dear Editor:

Your article in the January issue of *The Journal* of the Medical Society of New Jersey, concerned with the structure of organized medicine, really hit the spot. We all are involved with too many organizations with almost the same objectives.

(signed) Walter H. Miller, D.O.

CME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

ANESTHESIOLOGY

June

17 Controversial Issues in Neuroanesthesia 4-5:30 p.m.—College Hospital, Newark (NJ Medical School, Dept. of Surgery and AMNJ)

CARDIOLOGY

June

- 13 Abnormalities of the EKG in the Absence of Heart Disease 12 noon—St. Mary's Hospital, Orange
- (AMNJ)
 21 Cardiac Evaluation of the Child and Adolescent for Sports Participation

Adolescent for Sports Participation 12 noon-1 p.m.—Mountainside Hospital, Montclair (Mountainside Hospital and AMNJ)

MEDICINE (includes Family, Internal, General Medicine, and Dermatology)

June

- 1 Thyroid Disease 12 noon-1 p.m.—Hospital Center at Orange (AMNJ)
- Medical Treatment of Ulcerative Colitis 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)
- 2 Orthopedic Problems 10:30 a.m.—St. Mary's Hospital, Passaic (AMNJ)
- 2 Medical Grand Rounds 11:30 a.m.—VA Medical Center, East Orange (Endocrinology Section of AMNJ)
- 2 Hypertension 1-2:30 p.m.—Christ Hospital, Jersey City
- (Christ Hospital and AMNJ)

 Medical Grand Rounds
 9:30 a.m.—Newark Beth Israel Medical
 Center
- (Endocrinology Section of AMNJ)

 The Tachyarrhythmias
 7:45 a.m.-4;30 p.m.—Newark Beth Israel
 Medical Center
 (Newark Beth Israel Medical Center and
 AMNJ)

- 4 Medical Grand Rounds 11:30 a.m.—College Hospital, Newark (Endocrinology Section of AMNJ)
- 4 Wolff-Parkinson-White Syndrome 12 noon—St. Mary's Hospital, Orange (AMNJ)
- 4 Systemic Lupus 12 noon—Freehold Area Hospital (AMNJ)
- 4 Renal Conferences in Nephrology
- 18 4-5p.m.—College Hospital, Newark (Nephrology Society of NJ and Nephrology Section, AMNJ)
- 8 Acute Renal Failure
- 22 Approach to the Arthritic Patient
 11 a.m.-12 noon—Greystone Park
 Psychiatric Hospital
 (Greystone Park Psychiatric Hospital and
 AMN.I)
- 8 Rheumatology (Arthritis)
 11 a.m.—Greystone Park Psychiatric
 Hospital
 (AMNJ)
- 9 Use of Calcium Antagonists in Heart Disease 1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)
- 10 Intracranial Infections 11 a.m.-12:30 p.m.—St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)
- 15 Uremic Anemia-A Hyperproliferative Disorder? 4-5 p.m.—Middlesex General Hospital New Brunswick (UMDNJ and AMNJ)
- 16 Dermatological Conference 6-9 p.m.—Rutgers Community Health Plan, 57 U.S Highway I, New Brunswick (UMDNJ and AMNJ)
- 16 Appropriate Use of Benzodiazepines 11:30 a.m.-2:30 p.m.—VA Medical Center, Lyons (VA Medical Center and AMNJ)
- 17 Update: Immune Responses, Defense Mechanisms, and Prostaglandins 5-6:30 p.m.—Somerset Medical Center Somerville (Somerset Medical Center and AMNJ)
- 18 Leukemia-Marrow Transplants 12 noon—Freehold Area Hospital (AMNJ)
- 1 Bleeding Disorders 12:30-1:30 p.m.—West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ)
- 21 Gastrointestinal Bleeding 7-8 p.m.—Paul Kimball Hospital, Lakewood (AMNJ)

22 Acute Renal Failure
11 a.m.—Greystone Park Psychiatric
Hospital
(AMNJ)

NEUROLOGY/PSYCHIATRY

June

- 1 Psychiatric Case Conference
- 8 7:30-9:30 a.m.—Trenton Psychiatric
- 15 Hospital
- 22 (Trenton Psychiatric Hospital and
- 29 AMNJ)
- 2 Grand Rounds in Psychiatry 1:30-3 p.m.—NJ Medical School, Newark (UMDNJ and AMNJ)
- 2 Child Psychiatry Case Conference
- 9 8:30-10:30 a.m.—Trenton Psychiatric
- 16 Hospital
- 23 (Trenton Psychiatric Hospital and
- 30 AMNJ)
- 3 Benzodiazepines: Mechanism, Use, and Effects
- 10 The Use and Misuse of Sedatives/Hypnotics 12 noon-1 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)
- 7 Psychodynamics of a Professional Person's Group 8-10 p.m.—22 High Street, Summit (Essex Psychiatric Seminar and AMNJ)
- 7 Seminar in Psychotherapy 8:30-10:30 p.m.—Claridge House II Apt. 10N East, Verona (NJ Psychoanalytic Society and AMNJ)
- 8 Violence in Clinical Practice-
- 9 Causes and Prescriptions for Cure 9:30 a.m.-4:30 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)
- 9 The Psychiatric Expert: Legal Testimony and the Psychiatrist 3-4:30 p.m.—Fair Oaks Hospital, Summit (Fair Oaks Hospital and AMNJ)
- 16 Posttraumatic Stress Disorders in the Vietnam Veteran 10:30 a.m.-12 noon—NJ Medical School, Newark (UMDNJ and AMNJ)
- 17 Psychoanalytic Notes on Bach's Goldberg Variations 8-10 p.m.—St. Barnabas Medical Center, Livingston
- (St. Barnabas Medical Center and AMNJ)

 18 The Clinical Interview and Its Usefulness 2-4 p.m.—Trenton Psychiatric Hospital
- (Trenton Psychiatric Hospital and AMNJ)

 21 Clinical Problems in Child Psychotherapy

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- · improve sequential management of the acutely injured
- learn radiological procedures for proper diagnosis and treatment of the acutely injured
- appreciate clinical-radiological correlation essential in managing the acutely injured

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For further information contact:



8:30-10:30 p.m.-301 Broad St., Englewood

(NJ Psychoanalytic Society and AMNJ)

Women's Mental Health: Changing

30 Lives, Changing Problems 9 a.m.-4:30 p.m.-Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

July

- Lithium: Update on Use and Effects
- 8 Tricyclics and Tetracyclics
- Antipsychotic Medication
- Beta-blockade 12 noon-1 p.m.—Carrier Foundation,

Belle Mead (Carrier Foundation and AMNJ)

- **Psychiatric Case Conference**
- 13 7:30-9:30 a.m.—Trenton Psychiatric
- 27 (Trenton Psychiatric Hospital and AMNJ)
- Child Psychiatry Case Conference
- 14 8:30-10:30 a.m.—Trenton Psychiatric
- 21 Hospital
- 28 (Trenton Psychiatric Hospital and AMNJ)

OBSTETRICS/GYNECOLOGY

June

Infectious Diseases in Gynecology

11:30 a.m.-12:30 p.m.-Columbus Hospital, Newark (Columbus Hospital and AMNJ)

PATHOLOGY

June

- 9 Clinical Pathology Conference 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNII
- 12- Real Time, Cross-Sectional Sector
- 13 Scanning

9 a.m.-5 p.m.-Nassau Inn, Princeton (The National Foundation for Noninvasive Diagnostics)

PEDIATRICS

- 11 Lecture Series-Pediatric Subspecialties 8:15-9:45 a.m.—Overlook Hospital, Summit (Overlook Hospital, Columbia University
 - College of Physicians and Surgeons, and AMNJ)

RADIOLOGY

Lune

- 15 Ultrasound
 - 12 noon-1 p.m.-Hospital Center at

Orange (AMNJ)

GENERAL SURGERY

June

3 Arthritis-Concepts of Surgical Management 11 a.m.-12:30 p.m.-St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)

Hospital, and AMNJ)

22 Management of Blood Gases in Surgical Patients 8-10 p.m.—Englewood Club, Englewood (Englewood Surgical Society, Englewood

SURGICAL SPECIALTIES (includes ENT. Neurosurgery, Ophthalmology, Orthopedic, Plastics, and Vascular Surgery)

- Surgical Update in Gastrointestinal Disease 1-5 p.m.—St. Barnabas Medical Center,
 - Livingston (NJ Gastroenterological Society and AMNJI
- 16 Colon and Rectal Surgery 10:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ)

House of Delegates Schedule

216th Annual Meeting

Saturday May 15, 1982

FIRST SESSION

9:00 a.m.

Call to Order

by President Armando F. Goracci, M.D.

Invocation

by The Reverend Monsignor William J. Bazela,

St. Patrick's Church, Woodbury

Organization of the House

Transactions of 1981 House of Delegates

Introduction of Guests and Delegates from other states

Annual and Supplemental Reports

Proposed Amendments to the Constitution and Bylaws

Resolutions New Rusiness

Announcements

SECOND SESSION

10:30 a.m.

Report of the Nominating Committee Election

President's Farewell Address by Armando F. Goracci, M.D. Inauguration of Incoming President,

Howard D. Slobodien, M.D.

Monday May 17, 1982

THIRD SESSION

9:00 a.m.

Reports of Reference Committees:

"Constitution and Bylaws"; "A"; "B"; "C"; "D"; "E"; and "F"

Unfinished Business Adjournment

Dr. Arkad K. Biczak

Arkad Kalman Biczak, M.D., a member of our Passaic County component, died on March 9, 1982. Born in 1910, Dr. Biczak earned a medical degree from Loyola University, Chicago, in 1935. A lifelong resident of Passaic County, Dr. Biczak was a family practitioner until his retirement in 1979. During his career, Dr. Biczak was affiliated with St. Mary's Hospital, Passaic, and was a member of the American Medical Association.

Dr. Edward Kelemen

A member of our Monmouth County component, Edward Kelemen, M.D., died last month. Born in 1914, Dr. Kelemen was graduated from Ohio State University Medical School in 1941 and interned at Monmouth Medical Center, Long Branch. From 1943 to 1948, Dr. Kelemen was in residence in surgery, becoming board certified in that specialty. Dr. Kelemen was a member of the American Medical Association.

Dr. Irving J. Krems

Irving Joseph Krems, a member of our Middlesex County component, died on February 22, 1982. Dr. Krems was born in 1915 in New York City. After completing Ph.D. requirements at Polytechnic Institute, New York, Dr. Krems was employed at Colgate Palmolive Company as Manager, Organic Research. In 1965, Dr. Krem earned a medical degree at the University of Vienna, Austria, and interned at Middlesex General Hospital, New Brunswick, from 1965 to 1966, From 1966 until his death, Dr. Krems was an Associate, Medical Research Services, at Colgate Palmolive Company. Dr. Krems was a member of the American Medical Association, a Fellow of the American Academy of Family Practice, and a Diplomate of the American Board

of Family Practice. During his career, Dr. Krems was affiliated with Middlesex General Hospital, New Brunswick, and Riverside Hospital, Boonton.

Dr. Vito F. LaFranco

Vito F. LaFranco, M.D., a member of our Mercer County component, died on March 13, 1982. Born in 1923 in Trenton, Dr. LaFranco received his undergraduate education at Temple University, Philadelphia. From 1943 to 1947, Dr. LaFranco served in the Army Medical Service Corps as a captain. He earned a medical degree from the University of Bologna, Italy, in 1957 and interned at St. Francis Medical Center, Trenton, in 1958. During his career, Dr. LaFranco was on the surgical staff of St. Francis Medical Center and Hamilton Hospital, both in Trenton, and had courtesy privileges at Helene Fuld Medical Center, Trenton. At Hamilton Hospital, Dr. LaFranco served as Chief of General Surgery, Deputy Chief of Staff, and a past president of the medical staff.

Dr. Robert E. Lee

Robert Edward Lee, M.D., of Short Hills, died on March 5, 1982. A member of our Essex County component, Dr. Lee was born in Newark in 1912. He was graduated from Jefferson Medical School in 1938 and interned at Saint Barnabas Medical Center, Livingston. Dr. Lee served as general practitioner and obstetrician in private practice in Short Hills and Newark. Dr. Lee was a member of the American Medical Association.

Dr. Nathan J. Plavin

At the age of 78, Nathan J. Plavin, M.D., died on March 12, 1982. Dr.

Plavin, a past president of the Hudson County Medical Society (1961), was graduated from St. Louis Medical School in 1928. A physician in North Bergen for over 50 years, Dr. Plavin was a Fellow of the American Academy of Family Practice, a Fellow of the American College of Nutrition, and a Fellow of the American Geriatric Society; also. he was a member of the American Medical Association. During his career, Dr. Plavin was affiliated with Christ Hospital, Jersey City, and North Hudson Hospital, Weehawken, In 1978, Dr. Plavin was a recipient of MSNJ's Golden Merit Award in recognition of his 50 years of medical practice.

Dr. Frank C. Vogt

Word has just been received of the death of Frank Conrad Vogt, M.D., a member of our Essex County component. Born in 1920, in Brooklyn, New York, Dr. Vogt earned a medical degree at Cornell University in 1945; he completed a residency in pediatrics at Brooklyn Hospital in 1950. Dr. Vogt was a Diplomate of the American Board of Pediatrics and the American Board of Allergy and Immunology; he was a Fellow of the American Academy of Pediatrics and the American Academy of Allergy; and he was a member of the American Medical Association.

Dr. Harold M. Wilson

A member of our Essex County component, Harold Marshall Wilson, M.D., of East Orange, died on February 12, 1982. Born in 1920, Dr. Wilson earned a medical degree at Howard University Medical School in 1946. A member of the American Medical Association, Dr. Wilson was affiliated with East Orange General Hospital, and Harlem Medical Center, New York City.

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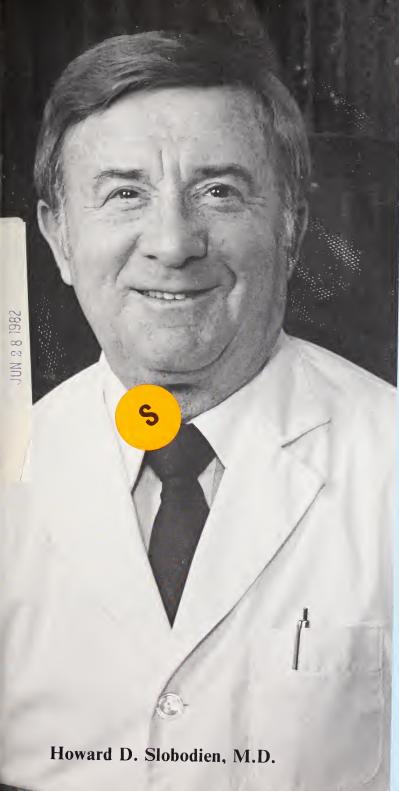
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Table of Contents Page 444



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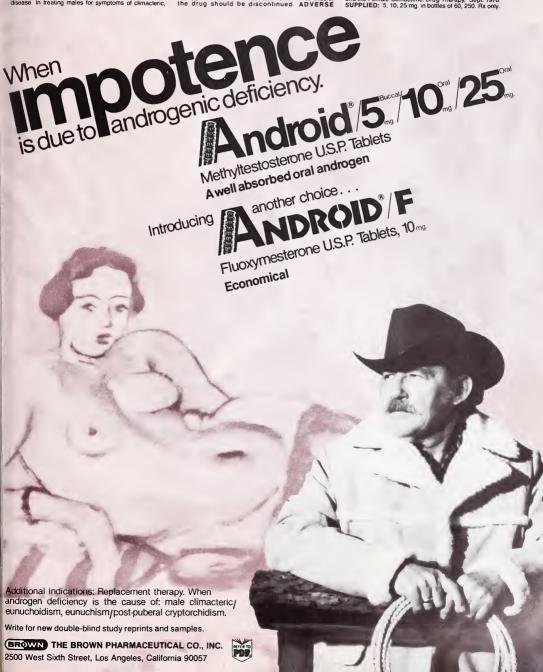
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Journal of the Medical Society of

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CONTENTS

449 PROFESSIONAL LIABILITY COMMENTARY

EDITORIALS

- 445 Howard D. Slobodien, M.D.-190th President
- 445 Whither Professionalism?

MSNJ AUXILIARY

- 461 Linda B. Hirsch, President
- **462 JEMPAC REPORTORIAL**
- 465 LIFELINE

INAUGURAL ADDRESS

469 Medicine in the 1980s
Howard D. Slobodien, M.D., Perth Amboy

FAREWELL ADDRESS

- 473 The Year of Challenges
 Armando F. Goracci, M.D., Woodbury
- 475 GOLDEN MERIT AWARDS

ARTICLES

- 479 The Radioallergosorbent Test (RAST)

 Arthur F. Fost, M.D., Newark
- Intraaortic Balloon Pumping: An Overview of Its Current Clinical Applications Ira H. Pores, M.D., and Glenn P. Jacobs, M.D., Newark
- 490 Continuous Subcutaneous Insulin Infusion Via Portable Pumps in Ambulatory Diabetics B. Robins M.D., H. K. Bucholtz, M.D., A. Pelle, M. D'Agostino, R.N., Springfield
- 496 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases John D. Slade, M.D., and Paul R. Lenz, M.D., New Brunswick

STATE OF THE ART

505 Nuclear Magnetic Resonance (NMR): A New Imaging Modality Neil B. Horner, Piscataway

CASE REPORT

- 509 Starch Granulomatous Peritonitis: A Case Diagnosed 16 Years Following Surgery R. McGarry, M.D., M. Russoniello, M.D., S. Davis, M.D., Newark
- 513 THERAPEUTIC DRUG INFORMATION
- 515 PEDIATRIC BRIEFS
- 517 WHAT IS YOUR OPINION?

DOCTORS' NOTEBOOK

- 518 Trustees' Minutes; March 21, 1982
- 520 UMD Notes
- 521 Controlled Dangerous Substances Act
- 524 New Jersey PAA Law
- 524 Children with Diabetes
- 525 Physicians Seeking Location in New Jersey
- 529 LETTERS TO THE EDITOR
- 529 CME CALENDAR
- 531 OBITUARIES
- 532 BOOK REVIEWS



On the Cover: We congratulate Howard D. Slobodien, M.D., the 190th President of the Medical Society of New Jersey. We know that our Society will be guided by a fair and inquisitive man whose prime interests are high-quality care for patients and fair play and respect for the medical profession. An editorial on Dr. Slobodien appears on page 455 and Dr. Slobodien's Inaugural Address begins on page 469.

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CONTENT

The education content of each issue appears as scientific articles, based on research, original concepts relative to epidemiology of disease, and treatment methodology; case reports based on unusual clinical experiences; review articles; clinical notes, succinct items on some aspect or new observation or technique of a case experience; and special articles, which include evaluations, policy and position papers, and reviews of nonscientific subjects. Other topics include commentary (critical narration); medical history; therapeutic drug information; pediatric briefs; nutrition update, and an opinion column. Editorials are prepared by the Editor and by guest contributors on timely and relevant subjects; editorials are the responsibility of the author. The Doctors' Notebook section contains organizational, informational, and administrative items from the Medical Society and from the community. Letters to the Editor and book reviews are welcome and will be published as space permits. The principal aim in the preparation of contributions should be relevance to diagnosis and treatment and to education of patients and professionals. Preference will be given to professional authors from New Jersey and to out-of-state lecturers who submit a suitable manuscript based on a presentation made in New Jersey.

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Authors are asked to seek clarity, accuracy, and originality; attention to details of grammar, spelling, and typing are important.

The title page should include the full name, degrees, and

affiliations of all authors, and the name and address of the author to whom reprint requests should be sent.

The author should submit a 50-word **abstract** to be used at the beginning of the article.

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Generic names should be used with proprietary names indicated parenthetically or as a footnote with the first use of the generic name. Proprietary names of devices should be indicated by the registration symbol—8.

The summary of the article should not exceed 250 words; it should contain only essential facts.

References should not exceed 35 citations except in review articles, and should be cited consecutively in the text by numbers in parentheses at the end of the sentence. The reference list should be typewritten and double-spaced on separate 8-1/2 by 11" sheets in the numerical order in which they are first cited in the text. The style of reference is that of *Index Medicus*:

1. Goldwyn RM; Subcutaneous mastectomy. J Med Soc NJ 74:1050-1052, 1977.

2. Dixon WJ, Massey FJ: Introduction to Statistical Analysis. New York, NY, McGraw-Hill, 1969, Pp. 00-00.

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References: 1. Wil hams RL, Karacan I Introduction, chap 1 in Sleep Disorders Diagnosis and Treat ment, edited by Wilhams RL, Karacan I. razier SH. New York lohn Wiley & Sons, 1978, p. 2. 2. Data on ile, Hoffmann-La Roche Inc., Nutley, NJ 3. Kales A et al: JAMA 241:1692-1695, Apr 20, 1979. 4. Kales A et al. Clin Pharmacol 17:207 Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, N.J., Kales A: Data on file. Hoffmann-La Roche nc., Nutley, NJ. 3. Kales A et al: Clin Pharnacol Ther 19:576-583, May 1976. **7.** Kales A. charf MB, Kales JD: cience 201:1039-1041 ep 15, 1978. 8. Frost D Jr, DeLucchi MR Am Geriatr Soc 27:541-46, Dec 1979 Dement WC et al. Behav Med 5(10):25-31. ct 1978 0. Vogel GW: Data on le, Hoffmann-La coche Inc., Nutley, NJ. 1. Karacan I, Williams L. Smith JR: The sleep aboratory in the invesgation of sleep and leep disturbances. Sci ntific exhibit at the 24th annual meeting f the American Psychi tric Association, /ashington, DC, May 3 1971. 12. Pollak CP. IcGregor PA, Weitz-nan ED: The effects of urazepam on daytime eep after acute sleepake cycle reversalresented at the 15th nnual meeting of the ssociation for Psycho

of sleep.

The Physician's Sleep Glossary

Some common sleep laboratory terms poly·som·no·graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they

experience, the quality of sleep and the duration

sleep la-ten-cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af-ter sleep on-set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to-tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.¹

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or nonrapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.²

re-bound in-som-nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.³



Efficacy objectively demonstrated in the sleep laboratory—the most valid environment for measuring hypnotic efficacy.

In numerous sleep laboratory investigations patients fell asleep sooner, slept longer and woke up less during the night³⁻¹² with

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Rebound insomnia is avoided upon discontinuation 3.4.7 of

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The efficacy of Dalmane has been studied in over 200 clinical trials with more than 10,000 patients.³⁻¹⁵ During long-term therapy, which is rarely required, periodic blood, kidney and liver function tests should be performed. Contraindicated in patients who are pregnant or hypersensitive to flurazepam.

Please see summary of product information on following page.



OCHE RODUCTS INC. anati, Puerto Rico

hysiological Study of

eep, Edinburgh, Scot

975. 13. Zimmerman

1. Kales A, Kales JD: harmacol Physicians

9):1-6, Sep 1970. 15.

ata on file, Hoffmann

Roche Inc., Nutley,

nd, June 30-July 4

M: Curr Ther Res 3:18-22, Jan 1971. Dalmane ([[] (flurazepam HCI/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive mights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCI: pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depres-sants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depres sion, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity

Dosage: Individualize for maximum beneficial effect. Adults: 30 mg usual dosage: 15 mg may suffice in some patients. Elderly or debilitated patients: 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



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Featuring: Legislative Proposals and Reforms

WIIENJ TO SEEK LEGISLATIVE REFORMS

Peter Sweetland, President of the New Jersey State Medial Underwriters, recently informed the Legislative Council of the Medical Society of New Jersey of the formation of a egislative committee within the Medical Inter-Insurance exchange of New Jersey.

MIIENJ's Committee, chaired by Robert S. Mauer, D.O., Bernard Rineberg, M.D., Hillel Ben-Asher, M.D., and Heny Liss, M.D., is charged with drafting and promoting rofessional liability legislation that can be presented to state egislators for enactment. The joint support of the Medical ociety of New Jersey and the New Jersey Association of Steopathic Physicians and Surgeons will be enlisted active-

Legislative proposals drafted thus far by the Committee ave concentrated on collateral source, structured settlements, statute of limitations, and limit on compensation; the roposals:

- Recommend the calculation of compensatory damages
 offset by any amounts the plaintiff may have received
 om other insurers, including workmen's compensation or
 1y government entitlement program other than proceeds of
 fe insurance or other death benefits.
- Recommend that money damages be paid in periodic tyments rather than by a lump sum payment if the award luals or exceeds \$100,000, and that the original judgment be duced by the amount of payments attributable to future edical treatment, care or custody, loss of bodily function, pain and suffering at the time of decease of the plaintiff.
- Recommend no action to recover damages be brought ore than three years after the date of the act (exceptions ould be intentional concealment by health care provider or e presence of a foreign body) regardless of minority or her legal disability except that a minor under 8 years of age all have until the 11th birthday to file suit based upon a use of action which occurred prior to the 8th birthday. The leadership of MIIENJ has growing concern that the ed for legislative reform is apparent," commented Mr. veetland. "We are most interested in assisting with a new ort to bring reason to current patterns in court decisions, e hope that our efforts can focus on those packages which Il have the best input, while they continue to preserve the thts of the patient."
- Recommend monetary cap on pain and suffering and her nonpecuniary damages awarded to any plaintiff in any ch case not to exceed \$100,000.

JTURE OF RULE 4:21 PANELS MAY HINGE ON TYSICIAN PARTICIPATION

The Supreme Court Committee on Relations with the edical Profession, chaired by the Honorable Arthur J. ake, recently met to discuss whether the Rule 4:21 panel buld be continued, eliminated, or revised.

After a lengthy debate and a narrow vote of the Commitmembers, it was decided to recommend to the Supreme

Court the continuance of the Rule 4:21 panels, at least for one more year.

The Administrative Office of the Courts that administers the Rule 4:21 program stated that a major problem exists in obtaining the physician panelist. The AOC has approximately 875 potential medical panelists; some 200 of these never have served.

"To date," comments Frances Boronski, Assistant Director of the Administrative Office of the Courts, "our office has scheduled approximately 962 panel hearings. Generally, attorney panelists are easier to designate. For some reason, attorneys in less densely populated areas more readily agree to be panelists. Our experience is that from 20 to 25 percent of cases scheduled involve at least one disqualification, usually the doctor—this disqualification requires us to redesignate another panelist at the request of the judge.

"During the first year of the program, we averaged 30 to 40 requests for panelists per month statewide. Today, we average between 80 to 100 cases per month statewide. Generally, we now are seeking panelists for cases forwarded to us by trial judges last fall. Rule 4:21 judges have been very patient with us and have helped by assuming the responsibility for setting the date for panels. Earlier, judges had designated the date and advised us of the doctor's specialty. We, in turn, would attempt to procure panelists for that date. Most judges now permit us to call doctors and request their services within a four- to six-week period.

"While the cooperation of Rule 4:21 judges has helped us, we continue to experience more and more difficulty obtaining panelists, whether we give them two weeks' notice, eight weeks' notice, a specific date, or their choice of dates. We tried writing to panelists months in advance, asking them to serve on a date of their choosing. We abandoned the practice because it was not successful."

The Department of Professional Liability Control empathizes with the AOC and, recently, at the request of the AOC contacted two medical specialty societies for physician volunteers to serve on the panel. One specialty society with a membership in excess of 270 members submitted the names of 12 physicians, the other specialty society with a 400-plus membership could not find a single volunteer.

Ms. Boronski continues by saying, "Any program with such heavy reliance on volunteers must have an independent process for continually adding new names in deference to those who may want to devote their volunteer time elsewhere after a certain period of time. In my opinion, it is unreasonable to expect any doctor to serve as a panelist more than once or twice a year."

James S. Todd, M.D., a member of the Committee and a staunch supporter of the Rule 4:21 concept, suggested the possibility of granting CME credits to physicians and per-

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department and Assistant Director and Editor.

haps having physicians at the county level obtain volunteer physician panelists. These suggestions were well received by the Committee which in turn requested Dr. Todd further to pursue these ideas through the state society.

Aside from the difficulty in obtaining panelists, the Committee was in unanimous agreement that the Rule 4:21 is highly effective in monitoring and moving medical malpractice cases; in fact, only 25 percent of all cases heard go on to trial.

A report of the Committee's concerns and recommendations will be forwarded to the Supreme Court for their decision on the future of the Rule 4:21 panel.

HOW INFORMED IS INFORMED WHEN A PATIENT MAY BE TOO YOUNG TO KNOW?

Since young patients can post special medicolegal dilemmas, at what age is consent meaningful for them? "At issue is how informed is informed," University of Texas Pediatrics Professor George H. McCracken, Jr., M.D., told a recent conference of child care specialists in Rhodos, Greece. "Probably 13 years old is minimum for a minor's signature, with parent or legal guardian certifying before that age. Exceptions depend on the underlying illness, the mental state of the subject, and the procedure under consideration. In any case, the decision to sign should not always be left to the physician alone, but at times to other responsible parties as well."

Former American Medical Association attorney William Isele, J.D., now practicing in New Jersey, suggests anticonsent by a minor is frought with malpractice hazard. Commenting on the State Supreme Court decision that parents may not force their minor daughter to have an abortion against her will, Isele observed: "Physicians would be well advised not to proceed with serious procedures in the face of a minor's vehement refusals, despite parental consent." (Medical Liability Monitor, Vol. 7, No 2, February 25, 1982)

IN HOMICIDE—AN UNBORN FETUS IS NOT A HUMAN BEING

The New Jersey Appellate Division recently dismissed a complaint against a juvenile who was charged with death by auto of a fetus three days before its expected date of delivery.

The Appellate Court affirmed the trial court's decision that an unborn fetus is not a human being within the meaning of the criminal codes.

The Court stated: "It may well be that medical knowledge has advanced to the point where it could be established that the fetus in this case was a viable child who could live separate and apart from his mother, so that emergence from the mother's body should no longer be the determinative factor in classifying the fetus as a human being for purposes of criminal homicide. It is not, however, within the court's province judicially to legislate on this issue, particularly in view of the fact that it recently has been considered and rejected by the legislature."

CAPS ON AWARDS WON'T EASE A NEW MALPRACTICE CRISIS

With a new malpractice crisis brewing, state legislatures again will be considering reform measures, including laws limiting the size of malpractice awards. The outlook for such laws, however, is not bright, considering what has happened

TABLE
How Malpractice Award Ceilings are Holding Up

	Year	Award	
	Enacted	Limited	Constitutional
California	1975	\$250,000	No
Idaho	1975	150,000	No
Illinois	1975	500,000	No
Indiana	1975	500,000	Yes
Louisiana	1975	500,000	Not yet tested
Nebraska	1976	500,000	Yes
New Hampshire	1977	250,000	No
New Mexico	1976	500,000	Not yet tested
North Dakota	1978	300,000	No
Ohio	1975	200,000	No*
South Dakota	1976	500,000	Not yet tested
Texas	1977	500,000	Not yet tested
Virginia	1976	750,000	Not yet tested

*No final appellate court decision. (Source: Insurance Corporation of America, Houston, TX)

to the cap laws passed during the last crisis: only two have been upheld as constitutional. (Medical Economics, March 1, 1982)

DID YOU KNOW

... A California family physician never followed up on the chest x-rays he ordered for a patient and his failure to do so cost him a \$67,825 malpractice judgment? The x-ray report indicated that there was a possibility of tuberculosis. Three years later the patient had the right upper lobe of one lung removed. There was conflicting testimony as to whether the x-ray department had failed to send the report or the doctor misplaced it, but interviews with jurors showed that they based their verdict on his failure to track it down. (Medical Economics, February 1, 1982)

... Southern California Physicians Insurance Exchange will have no rate increase for 1982 and will be returning \$5.5 million as a premium credit to current insureds who joined the program in 1976, 1977, and 1978?

... Virginia physicians have negotiated, through their state medical society, with St. Paul, a retrospective rating plan which will have St. Paul share dividends beginning in 1984 if the level of claims experience and investment earnings warrant?

... In New Jersey, the Hospital Association has established the Princeton Insurance Company that will write occurrence-plus coverage for physicians and St. Paul Insurance Company has been granted permission to write claimsmade coverage?

... Pennsylvania physicians may see not only their professional liability insurance premium rise, but also may receive a 16 percent increase in the surcharge they pay to the state-run Catastrophe Loss Fund?

restart the statute of limitations, a Philadelphia defense attorney warns? One physician who saw a patient after a three-year absence took only a brief history and renewed ar old prescription. The doctor was sued for failure to diagnose a condition that he allegedly had missed earlier. If he had taken a more thorough history, he might have picked up the condition and avoided the suit. (Medical Economics, February 1, 1982)

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ATIONS: Not for use in the eyes or in the external ear canal sperforated. This product is contraindicated in those individuals typersensitivity to any of its components.

ause of the potential hazard of nephrotoxicity and ototoxicity due should be exercised when using this product in treating extensive peration and other extensive conditions where absorption of neo-



mycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoplycoside antibiotics concurrently, not more than one application a day is recommended.

antipolicis concurrently, not more than one application a day is recommended. When using neomyran-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomyran in maintestation of sensitization to neomyran is usually a low grade reddening with swelling, dry scaling and itching, it may be manifest simply as a failure to heal During long-term use of neomyric-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regrees guickly on withdrawing the medication. Neomyric-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomyon is a not uncommon cutaneous sensitizer Articles in the current literature indicate an increase in the prevalence of persons allergic to neomyon. Ottobicity and nephrotoxicity have been reported (see Warning section). Complete literature available on request from Professional Services Dept. PML.



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The combination of propranolol HCl, the world's most trusted beta blocker, and hydrochlorothiazide, the standard among diuretics, enables INDERIDE to exert an additive antihypertensive effect! In fact, a propranolol/hydrochlorothiazide regimen maintained blood pressure below 90 mm Hg in 81.8% to 86.4% of patients followed for 6 to 18 months of therapy.

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When thiazides are prescribed in doses greater than 50 mg/day, the potential for hypokalemia increases substantially. What's more, the greater the fall in serum K+, the greater the risk of hypokalemia-induced PVCs.^{3,4}

With INDERIDE, the additive hypotensive effect of propranolol HCl allows the effective dose of hydrochlorothiazide to be kept low (25 mg b.i.d.). And by lowering the daily dose of diuretic, INDERIDE also lowers the potential for diuretic-induced side effects. Potassium problems are less likely to occur—yet blood pressure can be controlled consistently.

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Please see Brief Summary of Prescribing Information on following page.

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25 mg

WARNING: This fixed combination drug is not indicated for initial therapy of hypertension. Hypertension requires therapy titrated to the individual patient. If the tixed combination represents the dosage so determined, its use may be more convenient in patient. management. The treatment of hypertension is not static, but must be reevaluated as conditions in each patient warrant.

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Hydrochlorothazdie: Hydrochlorothazdes contrandicated in patients with anuria or hy-Hydrochlorothazdes.

to this or other sultonamide derive

percensitivity to this or other sulfonamide-derived drugs WARNINGS: Propranolol hydrochloride (INDERAL*): CARDIAC FAILURE Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta blockade always carries the potential hazard of further depressing myocardial contractitity and precipitating cardiac failure. Propranolol acts selectively with out abolishing the inotropic action of digitals on the heart muscle (i.e., hard of supporting the strength of myocardial contractions). In patients already receiving digitals, the positive more from a cation of digitals may be reduced by proprianolos the significant propriet. The re-lease SMEDERS WITHOUTS. HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure.

IN PATIENTS WITHOUT A HISTORY OF CAHDIAC FAILURE, confining depression of the myocardium over a period of time can, in some cases, lead to cardiact failure, in rare in-stances, this has been observed during proprianolof therapy. Therefore, at the first sign or symptom of impending cardiac failure, patients should be fully digitalized and/or given a di-uretic, and the response observed closely. a) if cardiac failure continues, despite adequate digitalization and durient therapy proprianoic therapy should be manifained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, impocardial infarction, following abrupt discontinuation of progranolol therapy. Therefore, when discontinuance of propranolol is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when progranolol is prescribed for angina pectors, the patient should be cautioned against interruption or cessation of therapy without the physician's advise if progranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute progranolol therapy and take other measures appropriate for the management of unstable angina pectors. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given propranolol for other indications.

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use have not been adequately appraised Special consideration should be given to programolor special to raggravating congestive heart failure. Propranolol may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing propranolol slowly. Propranolol does not distort thyroid function tests IN PATIENTS WITH WOLEF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the factly-cardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

pranolol. IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to releks stimul. For this reason, with the exception of pheochromocytoma, proprianoiol should be withdrawn 48 hours prior to surgery a which time at I chemical and physiologic effects are gone according to available evidence. However, in case of emergency surgery sur

gency surgery since propriations in a compensive minition or beta-receptor agoinsts, in effects can be reversed by administration of such agents, e.g., isoproterenol or levarterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has also been reported. IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRONCHITS, EMPHYSEMA), progranoled should be administered with caution since it may block bronchodulation produced by endogenous and exogenous catecholamine stimulation of

bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.
DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its betaadenergic blocking activity, propranolol may prevent the appearance of premonitory signs
and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially
important to keep in mind in patients with fabile diabetes. Hypoglycemic attacks may be
companied by a precipitous elevation of blood pressure.
Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal
function, cumulative effects of the drug may develop.
Thiazides should also be used with caution in patients with impaired hepatic function or
procressive liver disease. since minor alterations of fluid and electrotive balance may pre-

progressive liver disease, since minor alterations of fluid and electrolyte balance may pre-

cipitate hepatic coma
Thiazides may add to or potentiate the action of other antihypertensive drugs. Potential

occurs with gargionic or peripheral adrenergic blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial ashma
The possibility of exacerbation or activation of systemic lupus erythematosus has been re-

ported

WES IN PREGNANCY: Propranolol hydrochloride (INDERAL'): The sale use of propranolol in human pregnancy has not been established. Use of any drug in pregnancy or
women of childbearing potential requires that the possible risk to mother and/or fetus be
weighed against the expected the apeutic benefit. Embryotoxic effects have been seen in

weighed against merexpected therapeout, benefit in Individual enterts have been seen in animal studies at doses about 10 times the maximum recommended human dose Hydrochlorothiazide: Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnant women requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. Nursing Mothers. Thiazides appear in breast milk. If the use of the drug is deemed essential, the nature thould stom jurgion.

PRECAUTIONS: Propranolol hydrochloride (INDERAL*): Patients receiving catechol

PRECAUTIONS: Programoiol hydrochloride (INDERAL."): Patents receiving catechoi-amine-depliting drugs such as reserpine should be closely observed if proprianoiol is ad-ministered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharma-cologic activity of proprianoiol may produce hypotension and/or marked bradycardia result-ing in vertigo, syncopal attacks, or orthostatic hypotension. Such activity parameters should be ob-served at regular intervals. The drug should be used with caution in patients with impaired renal or fleating function.

renal or hepatic function

Hydrochlorothlazide: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals. All patients receiving hinazide therapy should be observed for clinical signs of fluid or

electrolyte imbalance, namely hyponatremia, hypochloremic alkalosis, and hypokalemia Summand urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitals may also fluence serum electrolytes. Warning signs, irrespective of cause are, dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular la ligue, hypotension, oliguna, tachycardia, and gastrointestinal disturbances such as nausi and vomiting

nd vormiting. Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is resent or during concomitant use of conicosteroids or ACTH Interference with adequate oral electrolyte intake will alto

pokalernia can sensilize or exaggerate the response of the heart to the toxic effects of digitals (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by us of potassium suppliements such as floods with a high potassium content

on porassion supprierings such as toous will a ring porassion rotherit Any chloride delicit is generally mild, and usually does not require specific treatment ex-cept under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatre man any occur in edematous patients in hot wealther, appropriate therapy is water restric-tion, rather than administration of salt, except in rare instances when the hyponatrema is life-threatening in actual salt depletion, appropriate replacement is the therapy of choice hyperuricemia may occur or frank gout may be precipitated in certain patients receivin the sarks boxed.

thiazide therany insulin requirements in diabetic patients may be increased, decreased, or unchanged Diabetes mellitus which has been latent may become manifest during thiazide administra

Thiazide drugs may increase the responsiveness to tubocurarine. The anthypertensive effects of the drug may be enhanced in the postsympathectomy place. The anthypertensive effects of the drug may be enhanced in the postsympathectomy place. This diminution not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

If progressive renal impairment becomes evident, consider withholding or discontinuin diuretic therapy

Thiazides may decrease serum PBI levels without signs of thyroid disturbance Imazi des may decrease serum PBI levels without signs of thryorid disturbance Calcium excellon is decreased by thrazides Pathologic changes in the parathyroid gland with hypercalicemia and hypophosphatemia have been observed in a few patients prolonged thazide therapy. The common complications of hyperparathyroidism such as nal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

ADVERSE REACTIONS: Propranolol hydrochloride (INDERAL's): Cardiovascular bradyvardia compressive heart failure intensification of AU block hypothesispin paraethesis.

ADVENSE HEACTIONS: Propranolol hydrochloride (INDENAL): Cardiovascular bradycardia. congestive heart failure, intensitication of AV block, hypotension, paresthesi of hands, artenal insufficiency, usually of the Raynaud type, thrombocytopenic purpornia central Nervious System lightheadedness, mental depression manifested by insornia lassitude, weakness, statgue, reversible mental depression progressing to catatonia, visu disturbances. hallicinations, an acute reversible syndrome characterized by disonental for time and place, short term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic collis. Altergic, pharyngitis and agranulocytosis, erythematous rash, fever combined with ach

Alleigic pharyngitis and agranulocytosis, erythematous rash, fever combined with ach and sore throat, laryngospasm and respiratory distress. Respiratory bronchospasm. Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purp. Miscellaneous reversible alopecia. Oculomucoculaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practiobl) have not bed conclusively associated with propramotol. Clinical Laboratory fest findings like alkaline phosphatales, lactate dehydrogenase. Hydrochtorothiazides Gastrointestinal, anorexia, gastric irritation, nausea, womling, crampine, diarrhea constituition, audicion, audicio entiraheadac cholestatic iaundice), parcreating.

cramping, darrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatit sialadentits

Central Nervous System dizziness, vertigo, paresthesias, headache, xanthopsia Hematologic leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia Cardiovascular orthostatic hypotension (may be aggravated by alcohol, barbiturates,

narconics)

Hypersensitivity purpura, photosensitivity, rash, urticaria, necrotizing angilits (vasculint cutaneous vasculints), lever, respiratory distress including pneumonitis, anaphylactic rear Other hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restlessness, transient blurred vision

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduc-

DOSAGE AND ADMINISTRATION: The dosage must be determined by individual titratic

dose of the thiazide component. When necessary, another antihypertensive agent may be added gradually beginning s 50 percent of the usual recommended starting dose to avoid an excessive fall in blood

OVERDOSAGE OR EXAGGERATED RESPONSE: The propranolol hydrochloride (INDERAL) component may cause bradycardia, cardiac failure, hypotension, or broncho

The hydrochlorothiazide component can be expected to cause diures is Lethargy of v

spasm. The hydrochlorothiazide component can be expected to cause diuresis. Lethargy of wing degree may appear and may progress to come within a few hours, with minimal deprison of respiration and cardovascular function, and in the absence of significant serum electrolyte changes or dehydration. The mechanism of central nervous system depresse with hiazade overdosage is unknown. Gastometesinal irritation and hypermohility can occur temporary elevation to BUN has been reported, and estum electrolyte changes could be temporary elevation to BUN has been reported, and estum electrolyte changes could be temporary elevation to BUN has been reported, and estum electrolyte changes could be temporary elevation to BUN has been reported. The temporary elevation is thing store to grevent pulmonary asponsible to the proposed of the

sinute supportive measures divergined minutidary orininal mytorianis necessive of HOW SUPPLIED, by 0.474—Each INDERIDE* 40/25 tablet contains 40 mg propranolol! drochloride (INDERAL*) and 25 mg hydrochlorothiazide, in bottles of 100 and 1,000. Als unid dose package of 100 **.80/25 tablet contains 80 mg propranolol hydrochloride (INDERAL*), and 25 mg hydrochlorida; in bottles of 100 and 1,000 Also in unit dose (INDERAL*).

References: I Veterans Administration Cooperative Study Group on Anihypertensive Agents J. A. M. A. 237. 2303 (May 23) 1977. 2. Bravo. E.L., Tarazi, R.C., and Dustan, H.P. N. Engl. J. Med. 292. 66 (Jan. 9) 1975. 3. Hollifield, J.W. and Slaton, P.E., Acta Med. Scann (Suppl.) 647. 67. 1981. 4. Holland, O.B., Nixon, J.V. and Kuhnert, L. Am. J. Med. 70. 762. (Apr). 1981. package of 100

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Howard D. Slobodien, M.D.—190th President

The Perth Amboy High School yearbook for 1939 described its salutatorian as follows: "A mischievous grin topped with dancing brown eyes and flaming red hair bear evidence of this brilliant lad's love for fun."

The Rutgers yearbook saw Howard Slobodien as "Quiet, debonair, and refined; "Red" acts the part of the true gentleman. His premed studies have been combined with other well-balanced activities that have produced a man of iberal thought and action."

How fortunate that Dr. Slobodien has maintained those ine qualities as he grew into his present status as a leader of his medical colleagues, a successful surgical practitioner, a eacher, and a citizen.

Howard has worked tirelessly for the Medical Society of New Jersey and the Middlesex County Medical Society for nore than a quarter of a century. He was a delegate for his ounty society for 20 years and filled numerous positions of eadership and responsibility until he became its President in 970-1971. He served as a member of the Board of Trustees of MSNJ for 7 years and as a Presidential Officer (Second Ice-President, First Vice-President, and President-Elect) refore he became President of the Society in May, 1982.

Born in Perth Amboy, Dr. Slobodien received an underraduate education at Rutgers College, a medical degree om New York University School of Medicine, and an ternship and residency training at New York City's Morsania City Hospital. Howard divided military service with a tint in the United States Navy prior to medical school and wo years as an Air Force Medical Officer in Newfoundland ollowing his residency. Dr. Slobodien has maintained private offices in Perth Amboy and Edison since 1955. His service to medicine and surgery in New Jersey include terms as a Chief of General Surgery at Roosevelt Hospital, Edison; Director of Surgery at John F. Kennedy Hospital, Edison, and Perth Amboy General Hospital; and President of the Medical Staff of John F. Kennedy Hospital and Roosevelt Hospital. To those of us who know, these positions represent gargantuan responsibilities and contributions.

Appointments as Clinical Assistant Professor of Surgery at UMD-Rutgers Medical School and as a member of the Advisory Council to the Consumer Health Education program at UMDNJ have been filled as well.

Howard Slobodien is certainly a family man. He met and married Sallie Yerkes when she was a student nurse at Bellevue Hospital, New York. Their offspring are four "big D's"—David, Donald, Daniel, and Douglas; the Slobodien's have a granddaughter and twin grandsons. Travel and golf are Howard's prime recreational activities.

For those of us who have observed Howard D. Slobodien function as a Trustee, we know that our Society will be guided by a stable, fair, inquisitive, and skeptical person whose prime interests are high-quality care for patients and fair play and respect for the medical profession.

We congratulate Howard Slobodien for the honors he so richly deserves and wish him the best of good health and success during his administration as the 190th President of the Medical Society of New Jersey.

A.K.

Vhither Professionalism?

By a 4-4 tie vote, the Supreme Court of the United States March, 1982, refused to decide definitively if a voluntary ganization had the right, indeed the responsibility, to omulgate ethical standards for the conduct of its members.

The case began seven years ago when the United States Federal Trade Commission (FTC), acting on a 1975 Supreme Court decision that for the first time applied antitrust statutes to professional associations, filed a complaint

against the American Medical Association, the Connecticut State Medical Association, and the New Haven County Medical Society charging that their ethical principles forbidding false and misleading advertising were a restraint of trade. After five years and millions of dollars in legal fees, the case was heard by a three-judge panel of the United States Court of Appeals in New York. That court, by a 2-1 decision, upheld the FTC's order barring medical associations from interfering with physician's attempts to advertise. That decision, however, did affirm the right of the profession to promulgate reasonable guidelines to prevent misleading, false, or deceptive advertising, and to conduct professional peer review of fee practices of physicians.

What is so disappointing in the Supreme Court's action is that it failed to resolve the question of regulation of the medical profession by the FTC. Why should the government try to stop guidelines intended to protect and benefit the public? Why should the FTC be allowed to exceed its legal authority to move against nonprofit associations when Congress, in the past, carefully has limited the agency's jurisdiction to profit-making organizations? Commented AMA Attorney Newton Minnow, "This is a case where the FTC has been obsessed with the past, unconcerned with the present, and blind to the future." The failure of the Supreme Court to take a stand on this issue is at best disappointing, and at worst a disservice to the public.

Professional services represent the most rapidly growing section of the economy. The merchandising of medical care as a commodity, that if only extended far enough will ensure good health, has serious implications for the future. The acknowledged increase in professionals and their need for productive activity only can heighten the competition for the health care dollar. Given the informational inequality between patients and professionals, careful delivery of information is essential if patients are not to be misled or, perhaps, exploited. The FTC, so far, has shown a clear lack of interest in policing blatantly misleading advertising by professionals.

One of the hallmarks of a profession is the willingness to accept responsibility for the conduct of its members. In accepting that responsibility, it is incumbent upon the profession to establish standards that insure public welfare and safety. Deprived of the right, professionalism becomes a hollow shell, and the public has no guarantee of quality sincerity, or competence.

In any society, there are bound to be excesses that fortunately, usually are in the minority. Traditionally, thos excesses have been constrained privately by those willing take a stand for righteousness. Now, unfortunately, the tren is toward regulatory agencies selectively releasing or restraining those excesses based upon political or economic expediency. The current push toward competition in health car is a case in point. It threatens to turn physician again physician and facility against facility without regard to quality or patient welfare and leaves, effectively, no one to decide what is professionally correct.

While the current widespread attack on professionalism understandable, it is nonetheless deplorable. It deprive practitioners of the very essence of their professionalism the has served this country so well, and will deprive the citizen his ability to rely on the security of professional trust. Th medical profession, its practitioners individually, must be o constant alert to the dangers of unbridled commercialism We are a group apart, a group with awesome responsibilitie and a group without whose expertise and dedication healt care as we know it would cease to exist. It is our respons bility, the FTC notwithstanding, to be sure that in all or individual actions we jealously guard the welfare of ou patients, our colleagues, and our society; eschewing the common, exposing the fraudulent, and educating the incom petent. This is, after all, the essence of professionalism ar without it society will suffer.

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Best time to call

Linda B. Hirsch, President

Linda Berger Hirsch, who assumes the leadership of the Medical Society of New Jersey Auxiliary, is well qualified and well prepared for the office.

Linda grew up in Englishtown and West Orange and graduated from West Orange High School. She received a



Linda B. Hirsch

bachelor's degree in psychology from Russell Sage College in 1964 and a master's degree in social work from the University of Pennsylvania School of Social Work in 1966. Linda interned at Philadelphia's Veterans Administration Hospital from 1964 to 1966 and was employed there as a medical social worker through 1967.

In 1968, Linda Berger moved her place of employment to New York University Hospital where she met and later married Paul J. Hirsch, M.D., an orthopedic surgeon. Paul is Treasurer of MSNJ, Chairman of the Committee on Publication of MSNJ, President of the New Jersey Orthopaedic Society, President of the New Jersey Association of Medical Specialty Societies, and President-Elect of the Academy of Medicine of New Jersey. Linda's position as an orthopedic social worker undoubtedly provided a kindred basis from which to harmonize with her husband's work.

Paul and Linda Hirsch live in Bridgewater with their son, Jeremy, a bright, friendly, and personable young man who studies at Rutgers Preparatory School.

Linda's activities with the Auxiliary have included Chairperson of the Medical Student Loan Fund Committee, the Membership Committee, the Convention Committee, and the Auxiliary Seminar. Linda has served as Treasurer and in each of the presidential offices (Second Vice-President, First Vice-President, and President-Elect). She is a Past President of the Somerset County Medical Society Auxiliary.

Linda's community activities include membership in the National Council of Jewish Women, the Board of Education of her local temple, the Hospital Auxiliary, and the National Association of Social Workers.

Professionally, Mrs. Hirsch is employed by a nonprofit agency—the Family Counseling Service of Somerset County—as a marriage and family therapist. She is licensed by the New Jersey State Board of Marriage Counselor Examiners. In 1981, Linda taught a course in marriage and family at Somerset County College.

We wish Linda Hirsch a successful year as President of the Medical Society of New Jersey Auxiliary. A.K.

JEMPAC REPORTORIAL*

Featuring: PAC Facts

JEMPAC AND AMPAC

- 1. The New Jersey Medical Political Action Committee (JEMPAC) is connected to the Medical Society of New Jersey.
- 2. The American Medical Political Action Committee (AMPAC) is connected to the American Medical Association
- 3. The Board of Trustees of MSNJ appoints the Board of Directors of JEMPAC, and the Board of Trustees of AMA appoints the Board of Directors of AMPAC.
- 4. The purpose of JEMPAC is to organize New Jersey physicians and their spouses into an effective political force to act on behalf of organized medicine.
- 5. JEMPAC has been described as the Council on Political Education of MSNJ.
- MSNJ pays administrative and political education expenses of JEMPAC.
- 7. Contributions made directly to JEMPAC and AMPAC by their members are the only funds available for support of state and federal political candidates.
- 8. JEMPAC and AMPAC conduct joint membership and fund-raising campaigns.
- 9. Contributions to JEMPAC and AMPAC are divided as follows:

	JEMPAC	AMPAC
Sustaining (\$100.00)	\$50.00	\$50.00
Active (\$50.00)	\$30.00	\$20.00
Spouse (\$25.00)	\$5.00	\$20.00

- 10. JEMPAC makes contributions to both New Jersey legislative candidates and New Jersey candidates for Congress. AMPAC makes contributions only to candidates for Congress.
- 11. Physician contributions made to candidates through JEMPAC and AMPAC are identified with organized medicine (MSNJ and AMA); whereas a physician contribution made directly to a candidate is identified only with that physician. Both kinds of contributions are necessary in order to have maximum political influence regarding medical matters.
- 12. A bipartisan committee composed of Democratic, Republican, and Independent JEMPAC Board members determines which candidates will receive JEMPAC and AMPAC contributions.
- 13. The decision to give JEMPAC support to a candidate is based on the committee's evaluation of the candidate's electability and whether the candidate is likely to be supportive of the Medical Society's positions regarding medical

matters before the Legislature or the Congress. All information available is considered in the evaluation process. Such information usually includes the candidate's statements, key voting records, evaluations by MSNJ staff and MSNJ lobbyists, and evaluation by doctors in the candidate's district.

14. A candidate that is deemed to have practically no chance of being elected is not given JEMPAC money, even when the candidate is considered to be very supportive of MSNJ positions. This rule is applied to physicians that are candidates. The JEMPAC Board of Directors believes this is prudent use of JEMPAC funds.

JEMPAC IN 1981 NEW JERSEY ELECTIONS

- 1. JEMPAC is nonpartisan. It supported 81 candidates in the 1981 New Jersey elections: 40 were Democrats, 40 were Republicans, and one was an Independent. Eighty-seven percent of JEMPAC-sponsored candidates won.
- 2. JEMPAC funds used in candidate support were contributed by 571 JEMPAC members in 1980 and 317 JEMPAC members in 1981. Approximately one-half of JEMPAC members are spouses of physicians.
- 3. JEMPAC spent \$18,650 in contributions to 81 candidates.
- 4. The twelve largest PAC contributions were made by the following PACs:

United Auto Workers PAC	\$12	23,864
Legal PAC (New Jersey lawyers)	\$10	05,695
Dental PAC	\$10	04,988
Realtors PAC	\$	78,948
Builders PAC	\$	70,981
Car PAC (Automobile dealers)	\$ (62,819
Education PAC (Teachers)	\$ (62,403
IIA Pac (Business group)	\$ 4	49,900
Private Enterprise PAC (Business)	\$:	28,764
Health PAC (NJ Hospital Association)	\$:	22,350
JEMPAC (MSNJ)	\$	18,650
Optometric PAC	\$	11,854

- 5. JEMPAC contributions per candidate supported ranged from \$100 to \$500.
- 6. It cost \$18,000 to \$20,000 to be elected to the New Jersey Assembly.
- 7. Governor Kean spent \$2,440,000 and James Florio spent \$2,340,000 in their campaigns for the governorship. Each of those amounts contained \$1,199,951 of public taxes contributed to each candidate from the public treasury. The remaining amounts (\$1,240,049 for Kean and \$1,140,049 for Florio) were raised from private contributors, including PACs.

^{*}Copies of JEMPAC and AMPAC reports are filed with the Federal Election Commission and are available for purchase from Federal Election Commission, Washington, D.C. This item was prepared by the Chairman of JEMPAC Committee, Frank Watson, M.D., and A. Ronald Rouse, JEMPAC Executive Director.

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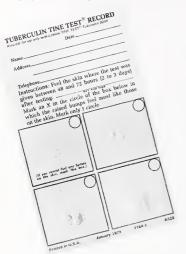
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Adverse Reactions: Vesiculation, ulceration, or necrosis may appear at test site in highly sensitive persons. Pain, pruritus and discomfort at test site may be relieved by cold packs or by topical glucocorticoid ointment or cream. Any transient bleeding at puncture site is not significant.



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The Medical Society of New Jersey and Middlesex General Hospital in New Brunswick are recipients of a one-year grant from the Hunterdon Health Foundation to complement the first contracted *Lifeline* system in New Jersey. This is the fourth in a series on the progress of the project during its first year of development.

It is encouraging to note that since the emergency response system was initiated at Middlesex General Hospital last fall, seven additional New Jersey hospitals have elected to implement the *Lifeline* system:

- · Atlantic City Medical Center, Atlantic City
- · Beth Israel Hospital, Passaic
- East Orange General Hospital, East Orange
 Greater Paterson General Hospital, Wayne
- Hamilton Hospital, Trenton
- Perth Amboy General Hospital, Perth Amboy
- · Riverside Hospital, Boonton

Prior issues of this newsletter have discussed *Lifeline* in general terms as well as the Middlesex General Hospital's *Lifeline* program in particular. This issue will report on activities of three *Lifeline* programs.

PERTH AMBOY GENERAL HOSPITAL

This Lifeline program is available to residents in the areas served by Perth Amboy General Hospital and Old Bridge Regional Hospital. Initial contributions from the Perth Amboy Savings Institution and a personal donation from Ernest R. Housen, Chairman of the Board of Raritan Bay Services Corporation and President of Perth Amboy Savings Institution, permitted the hospital's program to begin in February, 1982.

As of mid-April, *Lifeline* had ten subscribers with several potential subscribers being reviewed for processing.

Grace Swal, R.N., Coordinator for *Lifeline*, had the inique experience of being the first to coordinate the efforts of four Bell Telephone representatives. Most New Jersey *Lifeline* programs are located in a population area that is erved by a single Bell Telephone office. The densely populated area served by Perth Amboy General Hospital *Lifeline* has four Bell offices serving the area. Fortunately, each of the phone company representatives understood the value of an imergency response program and willingly cooperated with the *Lifeline* coordinator.

Perth Amboy General Hospital's emergency response ystem differs from many in its emphasis on the role of the esponder. The responder calls the switchboard operator to eport the emergency and to assess the situation as to the ype of assistance warranted. If the responder informs the operator of a need for medical assistance, it is the responder's responsibility to call the physician or rescue squad.

Ms. Swal notes two difficulties in establishing the emergency response system. One involves the inner city subscriber submitting names of responders whom they consider as being trustworthy. The other difficulty is the anger exhibited by some senior citizens when their children suggest a *Lifeline* program.

Ms. Swal suggests that coordinators of an emergency response system be certain that the home unit and hand unit are on the same frequency by comparing the last numbers on the home unit with those in the box on the right of the hand set.

GREATER PATERSON GENERAL HOSPITAL

Greater Paterson General held a press conference at the end of March to announce the implementation of its *Lifeline* emergency response system.

By mid-April, Greater Paterson General Hospital, whose *Lifeline* system serves the Bergen-Passaic area, had five subscribers and a list of potential subscribers that continues to increase daily.

RIVERSIDE HOSPITAL

Riverside introduced *Lifeline* on October 29, 1981, with the installation of four units. As of March 25, 1982, there were 21 units in operation with another 8 awaiting installation by the Long Lines Edward J. Hall Chapter of the Telephone Pioneers who volunteered to help with this emergency response system. All of the units have been made

"All of the units have been made available to subscribers through donations from various sources."

available to subscribers through donations from individuals, corporations, clubs, foundations, and churches and also as memorials. There now is a waiting list of approximately ten people.

The response from the subscribers has been most encouraging. One elderly woman, who uses a walker, said she now can enjoy getting up to fix a cup of tea without worrying about the possibility of falling. Another subscriber has been so enthusiastic about *Lifeline* that he has arranged for Riverside to present the *Lifeline* program to a senior citizen

group and the Tri-County New Voice Club (laryngectomees).

The community has been most receptive. The Mountain Lakes Women's Club has taken on *Lifeline* as their community project for 1982. The Mountain Lakes High School

"Lifeline adds another valuable resource in discharge planning at a hospital."

Student Council has selected *Lifeline* as the recipient of one of their fund-raisers. Several church groups already have made donations or have pledged money for the purchase of units. One of the local ministers felt the program was so important to the community, he asked that a *Lifeline* presentation be made during one of his regular Sunday morning services.

Lifeline adds another valuable resource in discharge planning at the hospital, providing another support service to patients to help in stabilizing their health and in maintaining their independence.

INFORMATION SERVICE

Mr. Ross L. Trimby, Vice President of Sales, *Lifeline* Systems, Inc., recently commented on MSNJ's *Lifeline* newsletter. Mr. Trimby, in a letter to the Medical Society of New Jersey, stated, "I must compliment you on this publication. Although various state agencies in the 42 states that currently have *Lifeline* programs have set up information channels to tell their state people about this new service, yours is the first state medical society publication to address this issue."

Information regarding the *Lifeline* project at Middlesex General Hospital may be obtained through, A. Ronald Rouse, Medical Society of New Jersey, Two Princess Road, Lawrenceville, NJ 08648, (609) 896-1766.

Lifeline newsletter may be printed without permission.

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VA Study¹

450 patients studied

Mild to moderate nypertensives Comparison of propranolol nd reserpine for Step-2 ntihypertensive therapy Conclusion: when added o a thiazide diuretic, reserline was effective in a larger ercentage of patients (88%) han was propranolol (81%)!

HDFP Study²

- More than 10,000 patients studied
- Conducted at 14 centers over 5 years
- Proved that compliance with Step Care lowers death rate from all cardiovascular
- **Conclusion:** reserpinethiazide regimens were preferred for Step-2 therapy, and were deemed effective, without significant adverse effects!

MRFIT Study³

- 6-year, 12,000-patient study, to be completed in 1982
- Assesses factors that may increase risk of cardiovascular disease
- Preferred Step-2 regimen: reserpine-thiazide
- Full year's data: reserpine is causing less depression than methyldopa, diuretics, or placebo!

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rences and brief summary of prescribing information on adjacent page. opyright @ 1982, Bristol Laboratories

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This fixed combination drug is not indicated for initial therapy of hypertension. Hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension is not static, but must be reevaluated as conditions in each patient warrant.

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Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.

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Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting or gastrointestinal bleeding occurs. Use caut Usuly, and only when deemed essential, in fertile, pregnant or lactating patients.

Use in Pregnancy—Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated morthers.

PRECAUTIONS

Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokalemia (especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss may cause digitalis intoxication. Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease or bronchial asthma and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.

ADVERSE REACTIONS

Hydroflumethiazide — Skin-rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation.

Reserpine — Depression, peptic ulceration, diarrhea, Parkinsonism, nasal stuffiness, dryness of the mouth, weight gain, impotence or decreased libido, conjunctival injection, dull sensorium, deafness, glaucoma, uveitis, optic atrophy, and, with overdosage, agitation, insomnia and nightmares.

USUAL DOSE

The usual adult dose of Salutensin is one tablet once or twice daily. If a smaller amount of thiazide diuretic is desired, Salutensin-Demi, one tablet once or twice daily can be given.

SUPPLIED

Bottles of 10 and 1000 scored tablets.

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INAUGURAL ADDRESS

Medicine in the 1980s

HOWARD D. SLOBODIEN, Metuchen*

hat will the practice of medicine be like in the 1980s? Technology will change, patterns of disease may vary, and new therapies and medications will appear. But all of us can be sure of one thing—the medical profession will remain the target of many other groups in society. I suppose that is the penalty we must pay for being captain of the ship, the profession still most respected by the citizenry, although that respect continues to erode in this age of egalitarianism.

We can welcome the challenge to traditional practice when it represents a legitimate attempt to respond to the continually changing pressures of modern life. But we cannot accept the presence of competition that influences unfairly the mix in the methods of delivery of medical care. And I mean medical care, not health care as given by all manners of practitioners or paraprofessionals or lay persons. Medical care, if it needs definition, is that special and complex care rendered by a physician to the patient, with special rights and responsibilities to be assumed by each.

An increasing variety of methods has emerged for delivering medical care. We have governmental practice, HMO practice of several types, full-time university and community hospital-based practice, and, of course, the time-honored private practice of medicine. All of these can coexist, not in détente, but in the spirit of close harmony and cooperation exhibited by physicians in all climes and times.

But close examination shows that severe, sometimes unfair, external pressures are impacting adversely on the private practitioner. Let us examine a few of them.

I could talk at length about some of the problems we have with health insurers—the continuing differential between office and hospital reimbursement in their plans and their continuing incursions with the financing of closed-panel HMOs and their offshoots, via their huge rescue funds. But I will reserve this for another place.

I could discuss the impact of governmental bodies on HMO financing, differential rates of payment to hospitals and private offices, restrictions on prescribing habits, intrusions of regulatory bodies, development of closed-panel systems, mandatory second opinions, student loans, and the like. But this, too, will have to be developed another time.

I also could refer to the impact of the courts, of other health care professionals, and of the state of the economy, but I would prefer that these, too, have their separate days in the limelight.

However, I do want you to spend a few minutes considering two major problem areas—professional liability and the hospital/physician relationship.

PROFESSIONAL LIABILITY

In the middle 1970s, we faced a malpractice crisis that led to the establishment of physician-owned insurance companies in many states, including our own. Today we have no problem obtaining coverage—there are four underwriters available in New Jersey—but the prices we have to pay are leading to a second crisis, with an end nowhere in sight.

The large premiums now are interfering with the ability of new physicians to enter private practice and this, of course, alters the variety in the way medical care is delivered. Eighty-five percent of the medical students in New Jersey are borrowing money to pay for their education. When you add educational loan costs to those costs needed to equip and to establish an office and then pile liability premiums atop these, it becomes prohibitively expensive and financially impossible for many new physicians to consider private practice. Thus, the staff-model HMOs, the government, and the hospitals have a ready-made pool of physicians who are not able to enter practice through the traditional route of private medicine.

This critical observation is not intended to deny HMOs and others their places in the overall scheme of medical care. It is meant to point out the hidden changes in the malpractice crisis of today—its anticompetitive effect against only one segment of the multiple delivery system. And, let us remember that many established physicians are relinquishing the high-risk aspects of their practices. This, too, has a potentially detrimental effect to patients. If awards and premiums continue their climb, we may see the day when all babies are delivered by midwives.

^{*}The Inaugural Address was presented before the House of Delegates, May 15, 1982, Resorts International, Atlantic City.

Alterations in the tort system, as represented by a package of bills we have proposed to the New Jersey legislature, is a necessary step in attempting to promote greater fairness in the courts. But its effects on costs are something else; its reductive action would be slender at best, and it does not deal with more fundamental problems.

Being a doctor with "A" marks, one who is absolutely right 95 percent of the time, no longer is enough. No longer are we being held to reasonable standards; we are being held to impossible ones. Any untoward effect, physical or mental, seems to warrant compensation. And the rates keep rising and rising as a result. As the courts keep extending the venues of liability as being in the interests of society, perhaps the time has come for society to participate in the costs of the system. Without making specific recommendations, let me have you consider some alternatives.

"Close examination shows that severe, sometimes unfair, external pressures are impacting adversely on the private practitioner."

Part of the costs of liability premiums could be financed by the public, either through tax revenues or allocations from hospital reimbursement. (After all, 80 percent of actions are hospital based.) The no-fault or compensation style method of award could be reexamined even though many inequities exist in the present system. And, as has been proposed in New York and other states, awards above certain limits could be covered by a state fund that, in turn, is financed by health insurers. There are other possibilities, including any combinations of those already mentioned. Only one thing is clear to me at this juncture—some new process must be found to allow the traditional practice of medicine to compete fairly in the marketplace.

THE HOSPITAL/PHYSICIAN RELATIONSHIP

Now, let me talk about another major problem for a few moments-the hospitals. Although they still are considered to be our chief ally, the alliance now is more adversary than friendly and is becoming more so every day. It may be right and proper for hospitals to salary larger and larger numbers of physicians to furnish formerly unavailable services at a reasonable cost. It may be right for hospitals to offer roundthe-clock, clinic-type care. It may be right for hospitals to offer their ancillary services, such as laboratory and radiology, as a means of putting black-ink entries in their ledgers. It may be right for hospitals to have outreach facilities as residency training adjuncts. It may be right for boards of trustees to supervise closely the actions of their medical staff. It may be right for hospitals to take the lead in developing policies for local, state, and federal regulations of the health care industry.

But, is it right for hospitals with salaried physicians to deny privileges to similarly well-qualified private practitioners? Is it right for hospitals to be allowed to advertise their round-the-clock services in any manner they choose and to be reimbursed at much higher rates than the private, fully taxpaying physician? Is it right for hospitals to threaten physicians on their staff if they do not utilize the hospitals' laboratory and radiology services? And, is it right for the hospital to discount charges to the outpatient while charging

top dollar to the inpatient? Is it right for hospitals to set up outreach facilities that have no other function but to add to the hospital's coffer at the expense of physicians practicing in communities well supplied with medical care? Is it right for hospital boards to attempt complete control over medical staff activities? And, is it right for hospitals not only to attempt to lead the regulatory policy committees, but also to exclude this medical society from meaningful participation?

The hospitals to which I refer are semicharitable, not-forprofit institutions that enjoy considerable tax-exempt status and reap governmental subsidies that you and I cannot obtain.

The hospitals have recognized the problems with taxexempt status and many have founded new corporate structures that allow a for-profit division to invade the realm of the practicing physician and to funnel these profits to the parent organization with minimal tax liability. It is considered, by the hospitals, to be a necessary step because governmental regulations and ratesetting commissions make it impossible to maintain fiscal integrity by continuing merely to deliver quality care to the patient at a reasonable cost. But it is a disservice to all of society for the hospitals to thus accede to the governmental concept of a health care industry. They should have stressed the unique nature of health care and pointed out to the regulators, with our help, that the production of well patients is not at all similar to the production of widgets; the variables in the way humans respond are too numerous for ordinary industrial management concepts to be applied in unmodified fashion.

Lest you feel I am dismissing the hospitals from being our continuing friends and allies, let me assure you to the contrary. We need each other. But we will have to find some reasonable middle ground between the old concept of the hospital only as a workshop for the doctor and the present hegemonic institution that many hospitals have become. Now that the climate seems right, perhaps the first place to start is with the removal of constricting regulations, that have stifled, rather than fostered, cost conservation and which have forced hospitals to seek alternate, perhaps inappropriate, sources of revenue.

I am hopeful that the New Jersey Hospital Association and the Medical Society of New Jersey can work together for the common good. But with them or without them, we cannot allow the hospitals to dismember the delivery systems of medical care without regard to the deleterious effects it may have on the practicing physician and on the patient.

CONCLUSION

The store of knowledge held by the average person is so vast that only the specialist hesitates with all the answers. Every lawyer knows hospital administration; every hospital administrator knows law. Every businessman knows how to run the government; every legislator knows how business should be run. And every lawyer, hospital administrator, businessman, and legislator knows how medicine should be practiced. Only the physician treating patients realizes how complex and difficult it is to arrive at the right decision a reasonable amount of the time.

It has been an old cliché that "War is too important to be left to the generals." Yet, all good generals have served their time in the trenches and, from painful first-hand experience, have learned to hate war more than any other group. And it is not the generals who dissipate the fruits of victory. I feel the same type of cliché is being applied to us and I would

reply by saying, "Medical care is too important not to be left to the physicians." Our record speaks for itself; our accomplishments are great, our standards are high, and we still are the most respected of all occupations and professions. We need not apologize for the few bad apples in our barrel, as we continue our efforts to rid ourselves of them, for they are indeed few in number.

Many people feel the medical profession talks about the private practice of medicine as though it represented the Holy Grail—a quest to be pursued at the expense of accountability and at the expense of society in general, and the individual patient in particular. Nothing could be further from the truth; we believe medicine must be practiced at the highest levels of honor, devotion, and responsibility. In extolling the private physician while simultaneously accepting the salaried one, I hope you do not feel I am acting in a schizophrenic fashion. I truly feel that both are needed. But the private practitioner must not be allowed to go the way of the dinosaurs because of unfair competition. For this type of physician is the paradigm of the American—resourceful, generous, innovative, audacious, and fully responsible for his or her actions. To paraphrase lago, "He that filches from the

American physician his good name, robs him of that which not enriches him, but makes America poor indeed."

"Being a doctor with "A" marks, one who is right 95 percent of the time, no longer is enough. No longer are we being held to reasonable standards; we are being held to impossible ones."

There is an aphorism of Hippocrates that begins, "Vita brevis; ars longa ...," which in translation says, "Life is short, art is long; opportunity fugitive; experience delusive; judgment difficult." It is the duty of the physician not only to do that which immediately belongs to him, but likewise to secure the cooperation of the sick, of those who are in attendance, and of all the external agents.

It is of these external agents I spoke today. And, with your help, I shall do my utmost to secure their cooperation.

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FAREWELL ADDRESS

The Year of Challenges

ARMANDO F. GORACCI, M.D., Woodbury*

he 215th year of the Medical Society and my term as the 189th President literally flew by on the wings of

time.

During the past year there were many challenges relating to physician training and medical economics. We had frequent dialogue with the State Board of Medical Examiners to resolve differences of opinion regarding DRGs, FMGs, fee schedules, Schedule II drugs, prescribing procedures, and the impaired physician.

Also, we had to deal with some of the same problems with the Attorney General's office. The fact that a more conservative political force entered office does not necessarily

mean an end to our need to be vigilant.

We made consistent efforts to establish rapport with the past Commissioner of Health with varying degrees of success and, obviously, we must continue to develop our relations with the new Commissioner. Although predictions for the future fall within the grasp of my successor, Dr. Howard Slobodien, your 190th President, I feel from my limited exposure to the present state administration, that our relationship will be an exceptional one—one that has been lacking for the past several years between the Medical Society and the state.

Cutbacks in federal funding, in many areas of health care, have created some problems that will have to be faced.

The concept of block grants produces a different environment than what we previously have observed. However, with the present developing state administration and their apparent willingness to have a dialogue with the Medical Society, an excellent opportunity is present to help guide medical practice in New Jersey.

As directed by our Board of Trustees, the Ad Hoc Committee on Health Care Planning was established. The first meeting took place in February with representation from component societies. The Executive Committee met in April with representatives of the New Jersey Business Group

for Health. I predict that this Committee will have great influence in planning for medical care in New Jersey.

There has to be continuing concern for those who may not be able to procure proper medical care by reason of inadequate health insurance benefits. The private sector can make a contribution by establishing realistic charges.

The rising cost of medical care is a problem. Every effort must be expended to hold the cost down without sacrificing quality and availability of care for all patients.

I want to express thanks to all council chairmen and their committees for the great work they have done during the past year.

I especially want to commend the Committee on Medical Defense and Insurance for the many hours they spent handling the delicate situations between our members and our insurance carriers.

I commend the Committee on Impaired Physicians for the great progress they made for the caring of our less fortunate members.

I want to express particular thanks to Vincent Maressa, his administrative assistant, Diana Gore, and their staff for the organizational skills, humor, and patience afforded me during my tenure of office.

Very special thanks to my wife, Connie, and my two partners—Thomas Mervine and Steven Nicoll.

During the past year the membership in our state society has increased by 309 new members. An aggressive membership campaign began during Doctor Baker's administration and continues at the present time—particularly in medical schools and university hospitals. Hands of welcome will be extended to those hundreds of physicians in the state who are not members of our organization.

I want to thank this House of Delegates for allowing me to be President of the Society.

^{*}The President's Farewell Address was presented before the House of Delegates, May 15, 1982, Resorts International, Atlantic City.

Dr. Joseph W. Bitsack P.A.C.E.MAKER!



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GOLDEN MERIT AWARDS

At ceremonies held on May 15, 1982, during the 216th Annual Meeting of the Medical Society of New Jersey, at Resorts International, Atlantic City, the following members received MSNJ's Golden Merit Award indicating 50 years of medical practice.

medical practice.
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H. Donald Marshall, M.D. Howard '32 Peter H. Marvel, M.D., F.A.C.C. Temple '32
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G. Barton Barlow, M.D
R. Bryan Hillsman, M.D
Rufus R. Little, M.D. Pennsylvania '32
D. McCullagh Mayer, M.D. New York Medical '32
Walter F. Modrys, M.D. Long Island '32
Burlington County
Harry P. Landis, Jr., M.D
Camden County
Anthony Joseph Dilelsi, M.D
Alfred S. Hanson, M.D Temple '32
Arthur Gomersall Pratt. M.D lefferson '32
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Cumberland County
Sidney L. Siegel, M.D Maryland '32
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Essex County
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Everett O. Bauman, M.D Long Island '32
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Middlesex County	
Walter Greeman M.D. Habita 22	
Walter Grossman, M.D. Hahnemann '3. John Henderson, M.D., F.A.C.S., F.A.A.P. Columbia '3.	12
Stephen Jonap, M.D., P.A.C.S., F.A.A.P. Columbia 3.	2
Stephen Jonap, M.D Padova, Italy 3.	2
Monmouth County	
John P. Mohair, M.D Georgetown '3:	2
John T. Mohan, M.D Georgetown 5.	-
Morris County	
Nicholas A. Bertha, M.D New York University '3.	2
Charles B. Woodman, M.D Edinburgh '32	2
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Ocean County	
Charles Berk M.D. Downstate 22	2
H. Irving Dunn, M.D. Pennsylvania '32	5
J. Bruce Henriksen, M.D	5
Meyer H. Zuravin, M.D Maryland '32	5
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Passaic County	
Elliot Fishbein, M.D Maryland '32	2
John A. Ianacone, M.D Georgetown '32	2
Joseph R. Jehl, M.D New York University '32	2
John A. Ianacone, M.D. Georgetown '3. Joseph R. Jehl, M.D. New York University '3. Joseph A. Maffongelli, M.D. Georgetown '3.	2
Solomon Harris Pink M D Maryland 33	?
Benjamin Provisor, M.D. Jefferson '32	2
Anton P Randazzo M D C M McGill 33	2
Paul Ernest Rauschenbach, M.D New York University '32	2
Joseph M. Smolev, M.D	2
Paul Ernest Rauschenbach, M.D. New York University '32 Joseph M. Smolev, M.D. Buffalo '32 Irene J. Zalewski, M.D. Women's Medical '32	2
Salem County	
Muse Alfred Sheppard, M.D Hahnemann '32	2
Sussex County	
Victor Emil Burn, M.D Toronto '32	2
Union County	
Thomas Austin, M.D. Cornell '32 Walter S. Booth, M.D. Boston '32	2
J. George Diamond, M.D. Boston '32 Maryland '32	2
J. George Diamond, M.D Maryland '32	2
Leon C. Dwoyer, M.D	2
Clarence T. Hill, M.D	2
Alan L. Jacobs, M.D. Cornell '32 Paul J. Kreutz, M.D. Georgetown '32 Joseph A. Lepree, M.D. Georgetown '32 Joseph A. Lepree, M.D. Washington '32 Sydney S. Pearl, M.D. Washington '32 Elizabeth Rozsa, M.D. Hungary '32	2
Paul J. Kreutz, M.D Georgetown '32	2
Joseph A. Lepree, M.D Georgetown '32	2
Sydney S. Pearl, M.D Washington '32	2
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Werner Steinberg, M.D. Berlin '32 Joseph Stybel, M.D. Loyola '32	2
Joseph Stybel, M.D Loyola '32	2
*Awarded posthumously	
AWAITIEU DUSHIIIMOIISIV	

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ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION:

INSOMNIA

Others to look for:

agitation

anorexia

feelings of guilt and worthlessness

fatigue

palpitations

headache

vague aches

and pains sadness

psychic and

somatic anxiety

Artist's conception, looking out from the human eye as conceived in a schematic model.



LIMBITROLGIVEN H.S.: ONE OF THE VITAL SPECIFICS OF TREATMENT

Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include anorexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vaque aches and pains.

Limbitrol given once daily h.s. may be the best approach

Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol®

Tablets 5-12.5 each cantaining 5 mg chlordiazepaxide and 12.5 mg amitriptyline (as the hydrachlaride salt)

Tablets 10-25 each cantaining 10 mg chlardiazepaxide and 25 mg omitriptyline (as the hydrochloride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe onxiety

Controlndications: Known hypersensitivity to benzodiozepines or tricyclic ontidepressonts. Do not use with monoomine oxidose (MAO) inhibitors or within 14 doys following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate coultously, gradually increasing dosage until optimal response is ochieved. Confraintaided during acute recovery phase following myocordial.

Wornings: Use with great core in potients with history of urinory retention or ongle-closure gloucomo. Severe constipation may occur in potients toking. tricyclic ontidepressonts and onticholinergic-type drugs. Closely supervise cordiovosculor potients (Arrhythmios, sinus tochycordio and prolongotion of conduction time reported with use of tricyclic onlidepressonts, especially high doses. Myocordiol inforction and stroke reported with use of this closs of drugs) Coution potients about possible combined effects with alcohol and other CNS depressonts and against hozordous occupations requiring complete mental otertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first

Usage in Pregnancy: Use of minor tronquilizers during the first trimester should olmost olwoys be vovided becouse of increosed risk of congenitol molformotions os suggested in severol studies. Consider possibility of pregnancy when instituting theropy; odvise potients to discuss theropy if they intend to or do become pregnant. Since physicol and psychological dependence to chloridozepoxide hove been reported rorely, use coulion in administering Limbitral to addiction-prone individuols or those who might increose dosage, withdrawol symphoms following discontinuation of either component olone have been reported forusen, beadoche and molose for romitaributions. (nouse), headache and moloise for amitrophyline, symptoms (including convulsions) similar to those of borbiturate withdrowol for chlordiozepoxide). Precoutions: Use with coulton in potients with a history of seizures, in hyperthyroid potients or those on thyroid medication, and in potients with impoired renol or hapotic function. Becouse of the possibility of suicide in depressed potients, do not permit eosy occess to lorge quontities in these potients. Periodic liver function tests and blood counts are recommended. during prolonged freolment. Amitriphyline component may block action of guonethidine or similar onlinypertensives. Concomitant use with other psychotropic drugs has not been evoluated, sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of Discontinue several to by Seldie Sangery Eministronian Commission of the CT1 to essential freatment See Wornings for precoulions about pregnancy Limbirol should not be taken during the nursing period. Not recommended in children under 12. In the cledity and debilitated, limit to smallest effective dosage to preclude otoxio, oversedation, confusion or onlicholinergic effects. Adverse Reactions: Most frequently reported ore those ossocioted with either component olone: drowsiness, dry mouth, constipolion, blurred vision, dizziness and blooting. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nosol congestion. Mony depressive symptoms including onorexio, folique, weokness, restlessness and lethorgy have been reported as side effects of both Limbitrol and amitriphyline Granulocytopenia, joundice and hepotic dysfunction have been observed

The following list includes odverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely reloted drugs:

Cardiovascular Hypotension, hypertension, tochycordio, polpitotions, myo-

cordiol inforction, orrhythmios, heart block, stroke

Psychiatric Euphorio, opprehension, poor concentration, delusions, hollucinotions, hypomonio and increased or decreased libido.

Neurologic Incoordination, otaxio, numbness, lingling and paresthesias of the extremilles, extropyramidal symptoms, syncope, changes in EEG patterns. Antichalinergic Disturbance of accommodation, porolytic lieus, uninary retention, dilototion of urinory troct

Allergic: Skin rosh, urticorio, photosensitization, edemo of face and tongue, pruritus

Hematologic: Bone morrow depression including ogronulocytosis,

neritationaries but informative persistant introducing organizations, ecosmophilio, purpuro, thrombocytopenio Gastrointestinol. Nouseo, epigostric distress, vomiting, onorexio, stomotitis, peculior toste, diorinteo, block longue. Endocrine Testiculor swelling and gynecomostio in the mole, breast enlorgement, goloctorrheo and minor menstruol irregularities in the female contributions and towards of blood russ leads.

ond elevotion and lowering of blood sugar levels

Other Headache, weight goin or loss, increased perspiration, urinary
frequency, mydrariss, joundice, olopecio, portoit swelling

Overdosage: Immediately hospitalize potient suspected of hoving taken on
overdose. Teroitment is symptomatic and supportive 11V administration of 1 to

3 mg physostigmine solicytole has been reported to reverse the symptoms of omitriptyline poisoning. See complete product information for monifestation

and treatment Dosage: Individualize according to symptom severity and potient response Bosage: Intributorize occording to symptom severity of the point inesponse Reduce to smollest effective dosoge when solistoctory response is obtoined Lorger portion of doily dose may be token of bedfirme Single h.s. dose may suffice for some potients. Lower dosoges ore recommended for the elderly Limbitof 10-25, initial dosoge of three to four toblets doily or devided doses, increased to six toblets or decreased to two toblets doily os required.

Limbitrol 5-12 5, initial dosoge of three to four toblets doily in divided doses, for polients who do not tolerate higher doses. How Supplied: White, film-cooled toblets, each containing 10 mg chlor-

diozepoxide and 25 mg omitriptyline (as the hydrochloride solt) and blue Infirm-cooled toblets, each continuing 5 mg chlordiozepoxide and 12.5 mg omitrolyline (as the hydrochloride solt)—bottles of 100 and 500, Tel-E-Dose* pockages of 100, avoidable in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Poks of 50.



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The Radioallergosorbent Test (RAST)

ARTHUR F. FOST, M.D., Newark*

The role, accuracy, and proper perspective of the Radioallergosorbent Test (RAST) in the diagnosis of specific allergens by physicians is discussed. This paper presents the position of the New Jersey Allergy Society.

he Radioallergosorbent Test (RAST), introduced in 1967 as an in vitro measurement for diagnosing specific allergens in individuals, has added a new dimension to the study and understanding of allergic disorders. Its role in the routine evaluation of allergy patients has become controversial because of questionable claims and promotions, particularly by physicians using the test in their offices.¹

For the majority of allergists and physicians interested in the evaluation of allergy problems, the causes of allergic symptoms are diagnosed primarily by a careful history and followed by selected skin tests to confirm the diagnosis. The RAST is helpful to the occasional patient with pronounced dermographism, the patient with widespread dermatitis covering all skin sites, or the toddler who adequately cannot be prepared and restrained for skin testing.

Since its introduction, the RAST procedure continues to be improved. In recent years it has been promoted to physicians as an office procedure, easily performed by secretaries or nurses as part of their routine chores. A disturbing aspect of the promotion is the promise of profitmaking potential if the test is done frequently. Some allergists, family physicians, otolaryngologists, and pediatricians have been persuaded to purchase gamma counters, radioisotopes, centrifuges, and other equipment costing many thousands of dollars. Manufacturers send technicians to their offices to spend several hours training personnel in

the performance of this sophisticated procedure.

Only recently has the accuracy and reproducibility of the RAST been questioned in research and commercial laboratories with trained personnel who perform the RAST on a regular basis. In one study on the reproducibility in one research laboratory, Hamburger had his technicians run the RAST on the same serum for orchard grass several times each day over four days. The purpose was to look at disc-to-disc variation and day-to-day variation in different runs. He noted that laboratories usually do not do this kind of study and, if they do, they keep the results to themselves. He found what he considered to be enormous variation.²

In another study under the auspices of the Committee on Standardization of In Vitro Tests of the American Academy of Allergy, total IgE count was measured by 20 research and commercial laboratories. They received a serum containing 200 IU/ml and were aware that they were participating in a study analyzing the accuracy of these measurements. This study found that a practicing physician had a 30 percent chance of selecting at random a laboratory that may report a value for IgE of greater than 400 IU/ml on a 200 IU/ml standard or a value of less than 250 IU/ml for a standard containing 500 IU/ml. From the commercial laboratories

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"The RAST is valuable as an adjunct in specific instances, but should be done by laboratories experienced in the procedure and interpreted by physicians aware of the pitfalls and variabilities of the test."

alone, you would be likely to get a report somewhere between 1 unit and 420 units of a 200-unit known sample.³ This committee concluded that the mean levels obtained varied over a rather wide range because of reconstitution and dilution of the reagents among the laboratories and differences in the handling, storage, and period of shipping of the materials.

If this variability exists in research and commercial laboratories that do this procedure repeatedly with skilled laboratory workers, one must conclude that a busy physician's office would have at least the same, if not more, problems.

Another potential problem with the commercial availability of the RAST is the ordering by physicians unskilled in all aspects of allergy management. Just as ordering an electrocardiogram or hormone assay necessarily does not make one a cardiologist or endocrinologist, the ability to order a RAST does not make a physician an allergy specialist. Allergists have witnessed inadequate diagnoses and treatments in the past by skin testing laboratories treating only red marks on arms. They are concerned that superficial screenings will be interpreted as important answers to causes and management of allergy symptoms. The cost of RAST

remains high and, in most cases, significantly is more expensive than a consultation by a qualified allergist.

The future role of RAST in the management of the allergic patient will continue to be expanded, but misuse of this valuable tool today only will delay its proper definition.

CONCLUSION

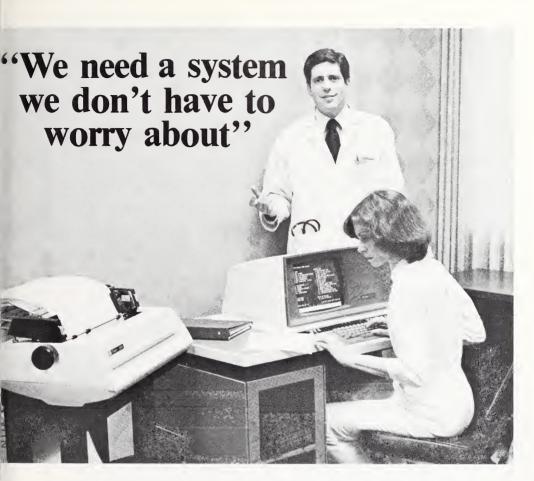
It is the position of the New Jersey Allergy Society that the primary means of diagnosing causes of allergic symptoms remains the history and selected skin testing done by a physician trained in these techniques. The RAST is valuable as an adjunct in specific instances, but should be done by laboratories experienced in the procedure and interpreted by physicians aware of the pitfalls and variabilities of the test.

SUMMARY

The Radioallergosorbent Test (RAST) is helpful for the occasional patient requiring allergy testing who cannot be skin tested. The RAST procedure is a radioisotope assay that requires sophisticated equipment and personnel to insure its accuracy. The usual, busy physician's office is not the proper place to perform this test. Even in the best research laboratories that perform this test on a regular basis, there is enormous variation from day to day on the same serum specimens. A carefully taken history remains the best tool for diagnosis of specific allergens, with confirmation by selected skin testing. Indiscriminate use of RAST will add only to the expense to the patient.

REFERENCES

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- 3. Evans RE: A U.S. reference for human immunoglobulin E. J Allergy Immunol 68:79-82, 1981.



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e. (INDERAL should not be used in the presence of ngestive heart failure, sinus bradycardia, heart block eater than first degree, and bronchial asthma.)* INDERAL blocks beta-receptor sites in the heart to duce heart rate and cardiac output —reducing cardiac ork load - sparing an overburdened heart. Hypertensive hearts can rest easy with INDERAL.

r many—it is ideal, first-step therapy. INDERAL—the sooner, the better for pertension-a leading risk factor in ronary heart disease.

ERAL (PROPRANOLOL HCI) **B.I.D.**The sooner, the better.



THE MOST WIDELY PRESCRIBED BETA BLOCKER IN THE WORLD

INDERAL (PROPRANOLOL HCI) B.I.D. FOR HYPERTENSION

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR) Inderal® BRAND OF propranolol hydrochloride A beta-adrenergic blocking agent

BEFORE USING INDERAL (PROPRANOLOL HYDROCHLORIDE), THE PHYSICIAN SHOULD BE THOROUGHLY FAMILIAR WITH THE BASIC CONCEPT OF ADRENERGIC RECEPTORS (ALPHA AND BETA), AND THE PHARMACOLOGY OF THIS DRUG

CONTRAINDICATIONS

INDERAL is contraindicated in 1) bronchial ashma, 2) altergic rhinitis during the pollen season, 3) sinus bradycardia and greater than first degree block, 4) cardiogenic shock, 5) right ventricular fallure secondary to pulmonary hypertension. 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythma treatable with INDERAL; 7) in patients on adrenergic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs.

WARNINGS

CARDIAC FAILURE. Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta-blockade always carries the potential hazard of further depressing myocardial contractifity and precipitating cardiac failure. INDERAL acts selectively without abolishing the inotropic action of digitals on the heart muscle (i.e., that of supporting the strength of myocardial contractions). In patients already receiving digitals, the postive inotropic action of digitals may be reduced by INDERALs negative inotropic effect. The effects of INDERAL and digitals are additive in depressing AV

IN PATENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure in trace instances, this has been observed during INDERAL therapy. Therefore, at the first sign or symptom of impending cardiac failure, patients should be fully digitalized and/or given a durente, and the response observed closely; a) it cardiac failure continues, despite adequate digitalization and durents therapy. INDERAL therapy should be immediately withdrawn b) if tachyarmlythmia is being controlled, patients should be maintained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, imposardial inflarction, following abrupt discontinuation of angina and, in some cases, myosardial inflarction, following abrupt discontinuation of iNDERAL is planned the dose should be gradually reduced and the patient carefully monitored in addition, when iNDERAL is prescribed for angina pectors, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL herapy is interrupted and exacerbation of langina occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectors. Since coronary aftery disease may be unrecognized, if may be prudent to follow the above advice in patients considered at risk of having occult attensoclerotic heart disease, who are given proprianollo for other indications.

IN PATIENTS WITH THYROTOXICOSIS, possible deletenous effects from long term use have not been adequately appraised Special consideration should be given to propraindols potential for aggravating conjective heart failure. Propraindols may mask the clinical signs of developing or continuing hyperthyrodism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propraindol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing proprainold slowly. Proprainold does not distort thrying function

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after proprianolo, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker in one case this resulted after an initial dose of 5 mg proprianolo.

IN PATIENTS DURING ANESTHESIA with agents that require catecholamine release for maintenance of adequate cardiac function, beta blockade will impair the desired inotropic effect. Therefore, INDERAL should be titrated carefully when administered for arrhythmias occurring during anesthesia.

IN PATENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of pheochromocytoma, INDERAL should be withdrawn 46 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emergency surgery, since INDERAL is a competitive inhibitor of beta receptor agonists, its effects can be reversed by administration of such agents, e.g., isoproterenol or levarterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has also been reported.

and maintaining the heart beat has also been reported IN PATIENTS PROJECT ON ALLERGIC BRONCHOSPASM (e.g., CHRONIC BRONCHIS). CHRONIC BRONCHIS, EMPHYSEMA). INDEFAILs should be administered with caution since it may block bronchodiation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA. Because of its betaadrenergic blocking activity, INDERAL may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially important to keep in mind in patients with labile diabetes. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

USE IN PRÉGNANCY. The safe use of INDERAL in human pregnancy has not been estab lished. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or letus be weighed against the expected therapeutic benefit Embryotoxic effects have been seen in animal studies at doses about 10 times the maxim

Fecomience on uman oose PRECAUTIONS

Patient's receiving catecholamine depleting drugs such as reserpine should be closely of served if INDERAL is administered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Oc sionally, the pharmacologic activity of INDERAL may produce hypotension and/or marke bradycardia resulting in vertigo, syncopal attacks, or orthostatic hypotension.

As with any new drug given over prolonged periods, laboratory parameters should be served at regular intervals. The drug should be used with caution in patients with impaire renal or hepatic function.

ADVERSE REACTIONS

Cardiovascular bradycardia, congestive heart failure intensification of AV block, hypote sion, paresthesia of hands, arterial insufficiency, usually of the Raynaud type, thrombody penic purpurs.

Central Nervous System: lightheadedness; mental depression manifested by insomnic lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visi disturbances: hallucinations, an acute reversible syndrome characterized by disoriental for time and place, short term memory loss, emotional lability, slightly clouded sensorium and decreased performance on neuropsychometrics.

Gastrointestinal nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic collits. Allergic pharyngitis and agranulocytosis, erythematous rash, lever combined with ach

Allergic pharyngitis and agranulocytosis, erythematous rash, fever combinand sore throat, laryngospasm and respiratory distress

Respiratory bronchospasm

Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura, thrombocytopenic purpura, thrombocytopenic purpura, thrombocytopenic purpurs, as the serious membranes and conjunctivae reported for a beta blocker (practolol) have not bee conclusively associated with proprianolol.

Clinical Laboratory Test Findings Elevated blood urea levels in patients with severe he disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase

DRAL DOSAGE AND ADMINISTRATION

HYPERTENSION—Dosage must be individualized. The usual initial dosage is 40 mg. INDERAL twice daily, whether used alone or added to a diuretic. Dosage may be increas gradually until adequate blood pressure is achieved. The usual dosage is 160 to 480 mg. day in some instances a dosage of 640 mg may be required. The time needed for full by tensive response to a given dosage is variable and may range from a few days to several weeks.

While twice-daily dosing is effective and can maintain a reduction in blood pressure throughout the day, some patients, especially when lower doses are used, may experien a modest rise in blood pressure toward the end of the 12 hour dosing interval. This can be evaluated by measuring blood pressure near the end of the dosing interval to determine whether satisfactory control is being maintained throughout the day if control is not adequate, a larger dose, or 3 times daily therapy may achieve better control.

At this time the data on the use of the drug in this age group are too limited to permit ac quate directions for use

INTRAVENOUS

The intravenous administration of INDERAL has not been evaluated adequately in the management of hypertensive emergencies

OVERDOSAGE OR EXAGGERATED RESPONSE

IN THE EVENT OF OVERDOSAGE OR EXAGGERATED RESPONSE, THE FOLLOWING MEASURES SHOULD BE EMPLOYED BRADY APPLIA A DEPOLINE (0.25 to 1.0 mg). IF THERE IS NO BE

BRADYCARDIA - ADMINISTER ATROPINE (0.25 to 10 mg) IF THERE IS NO RE-SPONSE TO VAGAL BLOCKADE. ADMINISTER ISOPROTERENOL CAUTIOUSLY CARDIAC FAILURE - DIGITALIZATION AND DIURETICS

HYPOTENSION—VASOPRESSORS, e.g., LEVARTERENOL OR EPINEPHRINE (THER EVIDENCE THAT EPINEPHRINE IS THE DRUG OF CHOICE)

BRONCHOSPASM— ADMINISTER ISOPROTERENOL AND AMINOPHYLLINE

HOW SUPPLIED

TABLETS INDERAL (propranolol hydrochloride)

No. 461—Each scored tablet contains 10 mg of propranolol hydrochloride, in bottles of 1 and 1,000. Also in unit dose package of 100 No. 462—Each scored tablet contains 20 mg of propranolol hydrochloride, in bottles of

and 1,000 Also in unit dose package of 100

No. 464—Each scored tablet contains 40 mg of propranolol hydrochloride, in bottles of and 1,000 Also in unit dose package of 100

No 468--Each scored tablet contains 80 mg of propranolol hydrochloride, in bottles of and 1,000 Also in unit dose package of 100

INJECTABLE

No 3265—Each mI contains 1 mg of propranolol hydrochloride in Water for Injection. The pH is adjusted with citric acid. Supplied as: 1 mI ampuls in boxes of 10.

Reference: 1 Freis, E.D. Hypertension (Suppl. II) 3 230 (Nov.-Dec.) 1981

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Intraaortic Balloon Pumping: An Overview of Its Current Clinical Applications

IRA H. PORES, M.D., and GLENN P. JACOBS, M.D., Newark*

The current indications for IAB pumping are reviewed. Aortic counterpulsation is useful in the management of patients with cardiogenic shock caused by acute rupture of the ventricular septum or severe mitral regurgitation. Also, IAB pumping has a major role in stabilizing patients with refractory unstable angina and in weaning off cardiopulmonary bypass. Its contraindications and complications are discussed.

he heart performs a rather mundane task: it pumps blood. For that reason, scientists and engineers have attempted to create mechanical devices that assist or duplicate its function. Many circulatory assist devices have been developed to help the heart during a period of transient dysfunction, including such ingenious attempts as a rubber cap placed around the heart that rhythmically would squeeze the ventricles and an external roller pump connected by large cannulae to the appropriate large blood vessels. The vast majority of these devices were traumatic for the blood elements and the heart, and the devices did not achieve widespread clinical application. The most important and most commonly used circulatory assist device is the intraaortic balloon pump (IABP).

Since 1953, when Kantrowitz demonstrated in dogs that by increasing aortic diastolic pressure one could increase coronary blood flow, different approaches were attempted to achieve a clinically useful device. IABP first was used successfully in patients with cardiogenic shock by Kantrowitz in 1967.² Since then, the clinical uses for balloon pumping have broadened. In this paper, we will present an overview of IABP with special emphasis on its present indications.

The equipment consists of a console (Figure 1) that inflates and deflates the intraaortic balloon catheter and the balloon catheter (Figure 2). Insertion of the balloon can be done at the bedside using local anesthesia. It is passed through the

femoral artery and the balloon tip is advanced to the level of the left subclavian artery (Figure 3). Recently, a balloon catheter has been developed that is inserted by the Seldinger technique through a 12 French sheath. This may enable IAB insertion in a shorter time, probably with no increased risk over the standard procedure.

PRINCIPLES AND TECHNICAL APPLICATION

Coronary blood flow occurs almost entirely during diastole and is related to diastolic blood pressure. The balloon inflates during diastole elevating diastolic blood pressure and increasing coronary blood flow. During systole the balloon deflates causing a decrease in systolic blood pressure and, therefore, afterload. These effects decrease the left ventricular work and increase coronary perfusion pressure. The end result is a favorable influence on myocardial energy supply and demand.

Patients placed on IABP should have routine monitoring of their electrocardiogram, intraarterial pressure, pulmonary artery pressure, and pulmonary capillary wedge pressure. Urine output, arterial blood gases, platelet count, and cardiac output should be monitored. To decrease thrombus formation on the balloon, heparin or low molecular weight

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Figure 1—The balloon console controls regulate the timing of inflation and deflation; the monitoring screen is for displaying arterial pressure.

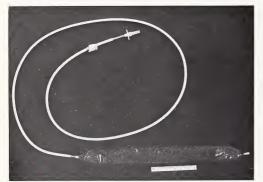


Figure 2—The single chambered Datascope intraaortic balloon.

Dextran® are used and, as with most vascular procedures, prophylactic cephalothin also is administered.

CLINICAL INDICATIONS

Cardiogenic shock and severe left ventricular failure complicating myocardial infarction: IABP found its earliest application in patients with cardiogenic shock following an acute myocardial infarction. When treated medically, these patients have a mortality of 90 percent with few survivors at one year.

These patients initially are treated medically with volume expansion to optimize the Starling effect, cathecholamines to increase blood pressure and cardiac output, and nitroprusside to decrease preload and afterload and increase cardiac output. When the systolic blood pressure remains less than 80 to 90 mm/Hg, the cardiac index less than 2 $L/\text{min/M}^2$, and the pulmonary capillary wedge pressure greater than 20 mm/Hg despite these interventions, then intraaortic balloon pumping is indicated.

In this setting, counterpulsation usually results in the improvement of cardiac output, mean arterial pressure, and mean pulmonary capillary wedge pressure. Despite the initial improvement in hemodynamic parameters, survival remains less than 20 percent unless mechanical lesions (acute mitral regurgitation, acute ventricular septal defect, ventricular aneurysm) are found that can be treated surgically.**

In patients with severe left ventricular failure and without cardiogenic shock, balloon pumping has been reported to increase survival. 12.13

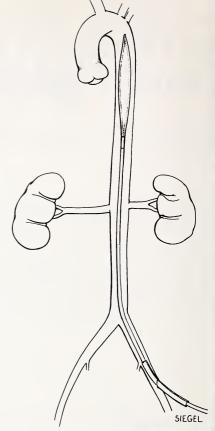


Figure 3—The intraaortic balloon is in position immediate proximal to the subclavian artery; the balloon enters via a sheat in the femoral artery and does not occlude the lumen of the aorta when expanded fully.

When IABP is combined with surgical correction of mechanical defect, survival increases to 40 percent. Whe greater than 40 percent of the left ventricular muscle i destroyed by a myocardial infarction, shock is irreversibl and unaffected by an intervention. In patients with less tha 40 percent necrosis of the left ventricular muscle and sever left ventricular dysfunction, aortocoronary bypass and ir farctectomy improves survival to about 50 percent. Coronar artery bypass surgery without correction of a mechanica defect in patients with cardiogenic shock, does not improv survival. 19

Preservation of the myocardium: Patients with continue chest pain during myocardial infarction may have ischemitissue that is viable. IABP in such patients may be used the preserve myocardium.* One group used IABP in 21 patient with chest pain in the immediate postmyocardial infarction period. All had relief of their discomfort; of the 17 who underwent surgery, 14 remained asymptomatic and 3 hamild congestive heart failure at the 9 to 28 month followup.

Leinbach et al. in an uncontrolled study used IABP in th first six hours of acute anterior myocardial infarction in l patients. Five responded with the ST segments returnin

TABLE

Indications for Intraaortic Balloon Pumping

Established Indications

- 1. Cardiogenic Shock
 - a. Secondary to myocardial infarction without a structural defect
 - Secondary to myocardial infarction with a structural defect, e.g. ventricular septal rupture, acute mitral regurgitation, ventricular aneurysm
- 2. Weaning from cardiopulmonary bypass
- 3. Unstable angina refractory to medical therapy
- 4. Heart failure refractory to medical therapy

Possible Indications

- 1. Reduction of infarct size
- 2. General surgery in the patient with a recent myocardial infarction or unstable angina pectoris
- 3. Low output septic shock

toward normal, while 6 patients showed no response and had poor residual left ventricular function. The use of IABP to reduce infarct size in uncomplicated myocardial infarction remains controversial.

Ventricular aneurysm: Some patients with ventricular aneurysm develop medically refractory congestive heart failure and/or refractory ventricular tachycardia. The IABP may be used to stabilize them and allow time for full evaluation and surgery. 18.19 When surgery is performed in this group with IABP, mortality is reduced to 25 percent and the quality of life is improved. 18

Unstable angina: Unstable angina is a medical emergency requiring admission to a coronary care unit (CCU) and vigorous treatment with nitrates and beta-blockade. In those patients responding to therapy, cardiac revascularization can be performed at a later date. In the group of patients who fail to respond to medical treatment, IABP alleviates angina in 80 percent and allows cardiac catheterization and coronary artery bypass surgery. In such patients, the perioperative infarction rate and mortality was similar to those undergoing elective bypass surgery. ¹⁵ Here, IABP provides support to the myocardium and allows time for diagnostic angiography and corrective surgery. ²¹⁻²⁴

Weaning from cardiopulmonary bypass: The most common use of balloon pumping is in the patient who fails to come off cardiopulmonary bypass during surgery. This occurs in about 3 percent of open heart surgical procedures and is uniformly fatal. Employing the intraaortic balloon in this situation enables many patients to be weaned from bypass. In one study, 45 percent of such patients, who needed balloon support, eventually were discharged from the hospital. In this setting, IABP appears most effective in patients having ischemia during the perioperative period.

"The use of IABP to reduce infarct size in uncomplicated myocardial infarction remains controversial."

Noncardiac surgery in the patient with coronary artery lisease: Patients with coronary artery disease have an increased risk of myocardial infarction during and after general surgical procedures. Patients with a history of recent nyocardial infarction (within three months of surgery) have perioperative infarction rate of 37 percent. In those with tocturnal or crescendo angina, the risk of perioperative nfarction is the same as the patient with a recent myocardial

infarction. Where applicable, coronary artery bypass grafting should be done electively prior to general surgery. In cases where bypass grafting is not indicated, as in a patient with a malignancy, IABP can be used during the surgical procedure. 27.28 When emergency surgery is needed in a patient with severe coronary artery disease, IABP has been employed successfully to minimize the risk. 27-29

CONTRAINDICATIONS

Counterpulsation is deleterious in the presence of moderate to severe aortic insufficiency because it increases the amount of regurgitation. The device cannot be inserted in the absence of femoral pulses. Other contraindications are relative: the presence of brain damage, aortic aneurysm, aorticiliac stenosis, and aortic dissection. The age of the patient should be considered; many clinicians use 70 years of age as a cutoff point.

COMPLICATIONS

The overall complication rate for IABP is 17 to 23 percent,^{7,30} but major complications that prolong hospitalization occur in 8 percent of cases.¹⁵ Direct mortality related to IABP is 2 percent.³¹

The most common complication is ischemia to the lower extremity in which the balloon is inserted; it is related directly to the patient's poor cardiac output.³⁰ Other causes of leg ischemia are thromboembolic events, intimal injury at the time of insertion, and discrepancy in vessel catheter diameter. Severe ischemia responds to crossover grafting and amputation rarely is required. On removal of the balloon, a Fogarty catheter is passed proximal and distal to the arteriotomy site to remove clots. Aortic dissection or laceration has occurred secondary to balloon insertion.⁶ Thrombocytopenia is a common occurrence, but it rarely is of clinical significance. Local wound infection does happen and can lead to abcess formation and septicemia. Balloon rupture or leak has been noted.³²

IABP AND THE COMMUNITY HOSPITAL

The economic and logistical problems involved in using the intraaortic balloon have limited the community hospital in its capability to offer this service. Our hospital and others have offered this service to other institutions in the community.³³ There are two options available. The stable patient can be transferred to an institution that can provide IABP; for the unstable patient, a team of two surgeons and a technician are sent to insert the balloon prior to transfer. With the advent of the percutaneous balloon, physicians trained in catheterization will be able to insert it. This will enable the patient to be stabilized with less time delay prior

to transfer for catheterization and possible surgical therapy.

SUMMARY

The intraaortic balloon is a circulatory assist device that is implanted in the femoral artery and advanced to the thoracic aorta. It decreases afterload by actively deflating with each systole, thereby increasing cardiac output. It increases coronary perfusion pressure by inflating during diastole.

There are several useful applications for aortic counterpulsation. In cardiogenic shock complicating myocardial infarction, it may be used to stabilize patients until they may be either weaned or taken to surgery for revascularization. It has been of proven value when the cardiogenic shock is secondary to mechanical defects, i.e. acute mitral regurgitation, acute rupture of the ventricular septum, and ventricular aneurysm. Its value is much less in patients who are in shock from established extensive myocardial necrosis.

Intraaortic balloon pumping is an effective way to stabilize patients with refractory unstable angina for angiography and surgery. It also has been useful in patients undergoing open heart surgery who cannot be weaned from cardiopulmonary bypass.

The complications associated with IABP are, for the most part, vascular. The incidence of serious complications is approximately 8 percent; it remains a device that should be reserved for the unstable cardiac patient.

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An added complication... in the treatment of bacterial bronchitis*



Appropriate culture and susceptibility studies should be performed

Contraindication: Ceclor is contraindicated in patients with nown allergy to the cephalosporin group of antibiotics nown allerly to the cephalosporum group of antibothy arthropism programmer and antibothy arthropism programmer are instances in which particular short expendituous and antibothy arthropism programmer are instances in which particular short individual colorisms. Antibothy arthropism programmer are instances in which particular short individual colorisms and antibothy are also antibothy and particular short short individual colorisms. Antibothy are short individual colorisms and antibothy are also antibothy and antibothy and antibothy are also antibothy and antibothy and antibothy and antibothy and antibothy and antibothy are also antibothy and antibothy and antibothy and antibothy antibo

articularly to drugs.

*recautions: If an allergic reaction to cefacior occurs, the d hould be discontinued, and, if necessary, the patient should be reated with appropriate agents, e.g., pressor amines, antihistamines,

Prolonged use of celactor may result in the overgrowth of onsusceptible organisms. Careful observation of the patient is ssential. If superinfection occurs during therapy, appropriate

ssential. If superintection occurs during therapy, appropriate jessues should be takens in save been reported during Positive direct Combination of the company of the seament with the capital sport and the total company of tudes or in translusion cross-matching procedures when inhighboil tests are performed on the minor side or in Combination Stating of new months of the company of the Stating of new months of the company of the procedure of the company of the company of the Stating of new performance of the company of the Stating of new performance Stating of the Stating of Stating Stating Stating Stating St

ositive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of Cector should be administration with administration with greaters of markedly impaired renal function. Under such a condition, careful linical observation and laboratory studies should be made ecause sale dosage may be lower than that usually recommended.

As a result of administration of Cector, a false-positive reaction

PA SINCUSE IN THE UTINE MAY OCCUR. This has been observed will enedict's and Fehling's solutions and also with Clinitest* siblets but not with Tes-Tape* (Glucose Enzymatic Test Strip, ISP, LIHY). or glucose in the urine may occur. This has been observed with

ISP_LIBY, Usage in Pregnancy—Although no teratogenic or antifertility (Esage in Pregnancy—Although no teratogenic or antifertility flects were seen in eproduction studies in mice and rats receiving to 12 times the maximum human dose or in efersts given three mes the maximum human dose, the salety of this drug for use in uman pregnancy has not been established. The benefits of the rigit in requant women should be weighed against a possible

Usage in Infancy — Safety of this product for use in infants iss than one month of age has not been established

dverse Reactions: Adverse effects considered related to efactor therapy are uncommon and are listed below. Gastrointestinal symptoms occur in about 2.5 percent of utients and include diarrhea (1 in 70) and nausea and vomiting

As with other broad-spectrum antibiotics, colitis, including rare istances of pseudomembranous colitis, has been reported in onjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5

Some ampicillin-resistant strains of Haemophilus influenzae-a recognized complication of bacterial bronchitis*-are sensitive to treatment with Ceclor.16

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus <u>pneumoniae</u>, <u>H. influenzae</u>, <u>S. pyogenes</u> (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.7



Pulvules®, 250 and 500 ma

rcent of patients and include morbilliform eruptions (1 in 100) uritus, urticaria, and positive Coombs tests each occur in less an 1 in 200 patients. Cases of serum-sickness-like reactions typems multiforme or the above skin manifestations accompanial arbitists (arbitagia and Iscenetti, legar) have been greated. ienythema multiforme of the above skin manifestations accompanie by arthrists 'arthrista' and injection (see' have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second occurse of therapy with Cector' localization. Such reactions have been eported orner relequently in children havin adults. Sings and symptoms usually occur a few days alter initiation of therapy and subside within a level days alter escassion of therapy, hos serious sequelae have been reported. Arthristamines and conflicts appear to enhance resolution of the syndrome.

include resolution in the syndrone. Cases ol anaphylaxis have been reported, half of which have courred in patients with a history of penicillin allergy. Dither effects considered related to therapy included eosinophilia in 50 patients) and genital pruritus or vaginitis (less than 1 in

Causal Relationship Uncertain — Transitory abnor

Causa Relationship Uncertain — Transitory abnormalities in clinical abboatory lest results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting internation for the physician. SEOT, SEPT, or akaline phosphatase values 11 in 40). Hemadpoweler—Transient fluctuations in leukocyte count, predominantly Imprincytosis occurring in inlants and young children 11 in 40. Herald "Saight elevations in 8UN or serven creatinne liess than 1 in 600 or abnormal unitalysis (less than 1 in 200). Protein 1

Many authorities attribute acute infectious exacerbation of chronic bronchitis to either S. pneumoniae or H. influenzae Note Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-

altergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc. Carolina, Puerto Rico 00630

Continuous Subcutaneous Insulin Infusion Via Portable Pumps in Ambulatory Diabetics

BERNARD ROBINS, M.D., HARVEY K. BUCHOLTZ, M.D., ANITA PELLE, MARGARET D'AGOSTINO, R.N., Springfield*

Insulin-dependent diabetes mellitus can be treated with continuous subcutaneous insulin infusion by portable pump and concurrent self-monitoring of blood glucose. The results can be gratifying with marked improvement in metabolic parameters and evidence of reversal of some end-organ damage.

he recent availability of small, portable infusion pumps for the continuous administration of insulin dramatically has increased the possibility of achieving significantly better control in diabetics when combined with the frequent self-monitoring of blood glucose levels. 1.2

The desirability of normalizing 24-hour blood sugar levels and, indeed, all of the metabolic abnormalities occurring in diabetic patients rests on the belief (or hope) that such normalization will reduce or eliminate microvascular, macrovascular, and other complications of the diabetic state.³

We have used the insulin pump in nine type 1 insulindependent diabetics during the past year. All of these nine patients still are using the pump (Table 1).

THE PUMP

The pump we employ is either the Mill Hill Infusor $(5\frac{3}{4})^{**}$ x $2\frac{3}{4}$ x $\frac{3}{4}$ x; weight 300 gms) or the Auto Syringe A.S.6.C. $(3\frac{3}{4})^{**}$ x $5\frac{9}{4}$ x 1"; weight 300 gms) (Figures 1 and 2). The pump is worn externally on a belt around the waist, under a bra strap, around the thigh, or in other innovative ways patients have found to be unobtrusive and acceptable.

The battery-driven pump infuses insulin at a constant rate from a storage syringe. The amount of insulin infused is adjusted by changing the concentration of insulin in the syringe. The insulin is delivered through a catheter attached to the storage syringe and to a needle that is placed subcutaneously. The pump can be programmed by the patient to

deliver variable doses of insulin from the pump-driven storage syringe in a bolus prior to meals or snacks. The syringe is prepared daily using purified U100 pork regular insulin diluted in normal saline or the insulin manufacturer's albumen-based diluent.

METHODS

We have selected our patients on the basis of indication for the need for better metabolic control such as pregnancy or deteriorating retinopathy. The patients are instructed to self-monitor blood glucose by using one of the reflectance meters and impregnated glucose oxidase test sticks. The patient's insulin program is converted to maximized aggressive conventional management using multiple subcutaneous injections of fast-acting and longer-acting insulin daily. A period of approximately two weeks is spent in getting the best possible control with the above methods. During this time the patient receives intensive instruction in pump management and complete data are obtained. At this point, if control is good, the patient is admitted into the hospital^a for approximately three days for intensive glucose monitoring on the Life Sciences Biostator^a Glucose Monitor which gives

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^aMetabolic Unit, Irvington General Hospital, Irvington, NJ

		TA	ABLE 1	
	li li	nsulin In	fusion Pum	ps
		Clini	ical Data	
			# Years	
Patient #	Sex	Age	Diabetic	Complications
1	M	55	30	Retinopathy;
				Neuropathy
2	F	28	24	Retinopathy;
				Neuropathy
3	M	26	10	Neuropathy
4	F	23	15	Retinopathy
5	F	30	20	Insulin Allergy;
				Retinopathy;
				Neuropathy
6	F	43	23	None
7	М	22	1	Retinopathy Renal? HCVD*
8	F	34	24	Retinopathy HCVD; P.V.D.
9	F	28	15	Pregestational**
*Diabetic r	ephrop	athv		

**Placing patient on pump to achieve maximal metabolic control prior to conception, so risk of congenital abnormalities is reduced.

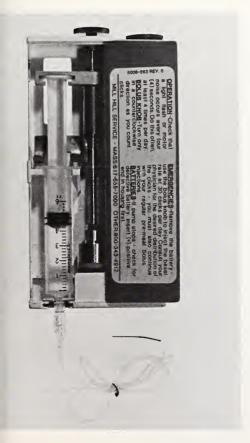


Figure 1-An open Mill Hill Infusor, Harvard Apparatus, Inc.

true time continuous blood glucose readings. The pump is inserted on the second hospital day and the patient is observed in the hospital for another 24 to 48 hours and initial adjustments in basal and bolus insulin doses are made. The patient is followed closely via daily office visits for approximately one week while self-monitoring of blood glucose is done frequently and further adjustments are made for diet, exercise, and usual activity. Finally, an algorithm is derived for self-adjustment of insulin doses (Table 2). Table 3 illustrates our protocol.

RESULTS

Table 4 indicates the insulin doses, blood sugar levels, and glycosylated hemoglobin A1C values in our patients before and during pump therapy. Despite the fact that total insulin doses in our patients significantly were not different, the metabolic parameters, blood sugars, and glycosylated hemoglobin levels were improved astonishingly. We had no incidences of infection at the injection sites, but we have seen insulin-mediated changes in the subcutaneous tissue in a patient with known insulin allergy. The insulin-mediated changes seen are local allergic skin reactions. They may subside spontaneously after several weeks, but switching to different insulin preparations may be helpful. Problems of mechanical failure, catheter disconnects, reservoir exhaus-

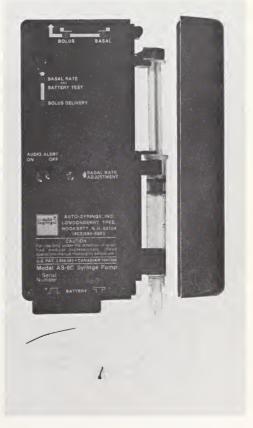


Figure 2-An open Auto Syringe, Auto-Syringe, Inc.

TABLE 2

Algorithm for Patient Using Insulin Infusion Pumps*

	SYMBOL	S		
١	< LESS	1AH1	١	F.B.S.: Fasting blood sugar
١	> GREAT	ER	THAN	A.C.B.: Before breakfast
	♦ INCRE			A.C.L.: Before lunch
ı	♦ DECRE	ASE		A.C.S.: Before supper
				H.S.: Before bed
				P.C.B.: After breakfast
				P.C.L.: After lunch
				P.C.S.: After supper
	If F.B.S.	>	130	Basal by 2 units
	If F.B.S.	<	60	♦ Basal by 2 units
	If P.C.B.	>	150	A.C.B. bolus by 2 units
	If P.C.B.	<	60	A.C.B. bolus by 1 units
	If A.C.L.	>	130	A.C.B. bolus by 2 units
i	If A.C.L.	<	60	A.C.B. bolus by 1_units
	If P.C.L.	>	150	A.C.L. bolus by 2 units
	If P.C.L.	<	60	A.C.L. bolus by 2 units
	If A.C.S.	>	130	A.C.L. bolus by 2 units
	If A.C.S.	<	60	↑ A.C.L. bolus by 1 units
	If P.C.S.	<	60	A.C.S. bolus by 1 units
	If P.C.S.	>	150	A.C.S. bolus by 2 units
	If H.S.	<	_60_	A.C.S. bolus by 1_units
	If H.S.	>	130	A.C.S. bolus by 2 units

SUPPLEMENTS: If blood sugar upon arising or before supper is more than 200 take 2 extra units for that time only.

> On a day of increased activity reduce the bolus prior to the activity by 2 units.

NOTES:

- 1. Bolus to be taken 15 to 30 minutes before
- 2. After meal, tests to be taken two hours after finishing the meal.
- 3. If in a conflict situation, contact doctor.
- 4. All adjustments to be made on the basis of two days of testing.
- 5. Prevent insulin reactions by eating meals and snacks on time.

*Numbers are used as a sample

tion, or calculation error have not occurred in our patients although the literature reports such occurrences.4 We are in the midst of studies on serum lipids, nerve conduction velocities, and retinal fluorescein angiography, but data are too incomplete to report at present.

DISCUSSION

The portable insulin infusion pump can contribute to the normalizing of carbohydrate metabolism in diabetics as our results clearly show. Also, it is evident from a review of the literature on the subject, that improvement in serum lipids, 5,6 growth hormone,8 somatomedin,9 epinephrine, postexercise albuminuria,10 motor nerve conduction velocity,11 and retinopathy12 can be expected. However, many questions still are unanswered about the use of this tool.

Is it cost-effective? The approximate cost is \$1,100 for the pump, \$250 for the reflectance meter, plus professional and hospital fees and ongoing expenses for equipment and supplies. In the long run, will this prove to be less expensive than the cost to the individual, family, and society of the acute and chronic complications of the disease? The answer is not known.

TABLE 3

Protocol for Continuous Subcutaneous Insulin Infusion

- Patient selection
- Instruction in self-monitoring of blood glucose B.
- C. Acquisition of data base
- D. Intensive patient education
- Conversion to maximal conventional Rx with multiple s.c. doses of insulin
- Several weeks of maximizing control
- G. 3-4 days hospitalization-(2) pump insertion
 - (1) continuous glucose monitoring
 - (3) observation, adjustment—on monitor
- H. Outpatient daily supervision 1-2 weeks Algorithm for self-adjustment

TABLE 4

rage Metabolic Studies

	Average inetabolic staties					
	aily n Dose	Blood (Glucose C + HS)	Glycos HG	ylated A1C	
Pre	On	Pre	On	Pre	On	
Pump	Pump	Pump	Pump	Pump	Pump	
39	41	262	124	11.9%	8.6%	
Units	Units	Mg	Mg			

Is the risk of infection, mechanical failure, or other pumprelated problems worth the benefits derived from better control such as increased strength, energy, and weight control? We think the answer is yes. Is the use of the pump more effective than maximal conventional intensive insulin therapy using multiple daily subcutaneous injections and frequent self-monitoring of blood glucose?13 We believe that continuous basal insulin infusion offers more in certain patients than can be accomplished with even the most sophisticated conventional programs. Is the pump the critical factor in the improvement or are there other reasons? We believe that the combination of patient motivation and compliance, selfmonitoring of blood glucose, patient and health team enthusiasm, and the pump are all indispensible ingredients to achieving maximal success. Is the pump able to normalize completely glucose metabolism without dangerous hypoglycemia? We have not found blood sugars to remain completely normal in any patient and some patients have had persistently abnormal blood sugar levels. Our incidence of hypoglycemic episodes has not been excessive nor severe.

CONCLUSION

It is our belief that insulin infusion pumps are a valuable tool in the management of diabetics if patient selection is careful; if education and instruction are intensive and complete; if patient motivation and compliance are excellent; and if supervision is close and ongoing. The results achieved seem well worth the cost and effort.

SUMMARY

We have treated nine insulin-dependent diabetics with continuous subcutaneous insulin infusion by portable pump over the past year. Patient selection has been based on progressive microvascular complications, pregnancy, or difficulty in control by conventional means. The patients concurrently are managed by self-monitoring of blood glucose. The protocol for pump treatment includes intensive education, establishment of a complete data base, maximizing control with multiple conventional insulin injections

daily for several weeks before using the pump, and very close supervision while on the pump. Ultimately, algorithms for self-adjustment are developed. Our results have indicated marked improvement in metabolic parameters as exemplified by levels of blood sugars and glycosylated hemoglobin AIC. "Closing the loop" by the use of continuous subcutaneous insulin infusion via portable pumps and self-monitoring of blood glucose is a significant advance towards achieving close to normal metabolism in diabetic patients. The costs and risks seem acceptable in view of the benefits derived.

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THE MULTIVITAMIN/MINERAL FORMULATION

Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases*

JOHN D. SLADE, M.D., and PAUL R. LENZ, M.D., New Brunswick

Seventeen cases of Lyme disease have been recognized in New Jersey by the end of 1980. Four patients lived in the same neighborhood; many had onsets between April and November and probably were exposed to the disease in the central or southern part of the state. The epidemiology, clinical spectrum, and therapy of this newly reported disease are discussed.

yme disease is a tick-borne, multisystem disease of unknown etiology. 1-4 Its manifestations include a pathognomonic skin lesion, erythema chronicum migrans (ECM), mono- or oligoarticular arthritis, neurologic disease, and cardiac abnormalities. An acute, systemic illness may accompany ECM. Lyme disease probably is endemic to several regions of the United States, including coastal areas of the upper Atlantic states and parts of the west coast, Wisconsin, and Minnesota. 3-6 Most cases have been diagnosed in Connecticut where the disease first was recognized in 1975 and subsequently described through the extensive work of Steere et al. 1-8 The incidence of Lyme disease is unknown except in the few places where intensive case finding has been conducted. 1

This report was prompted by the recognition of 15 cases of Lyme disease acquired in New Jersey between 1978 and 1980 and two cases that were acquired out-of-state by New Jersey residents. Four of these cases were children who resided in one small neighborhood. We review the epidemiologic features of Lyme disease, its clinical spectrum, and the current approaches to therapy.

BACKGROUND

During the fall of 1979, we were approached about three cases of unusual arthritis in children; a fourth case occurred in another boy from the same neighborhood. The development where these children live consists of 19 homes in a

semirural, mixed forest and farming area in central New Jersey, 12 miles from the Atlantic Ocean; most of the homes were occupied between 1977 and 1978. Thirty-eight children live in this housing cluster.

Thirteen additional cases were identified from a published report of Lyme disease occurring outside of Connecticut, through a May, 1980, letter from the New Jersey State Department of Health to all physicians in the state, and through informal reports from interested physicians to the Department of Health. One of these patients (Case 5) was the subject of an earlier case report. 10

CASE DEFINITION AND METHODS

A case was considered definite if the characteristic skin lesion, ECM, was documented by an unambiguous history from the patient or by physician observation, or if mono- or oligoarticular inflammatory arthritis without other definite etiology occurred in a resident of a hyperendemic neighborhood

ECM consists of an expanding, erythematous lesion with well-defined borders.² A history of tick bite at the center of the initial lesion, while often helpful, is not essential for the

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Figure 1—Erythema chronicum migrans in Case 16. Note the two large, sharply marginated lesions; the distinct annulus especially is prominent on the arm. (Photograph courtesy of Nayan Kothari, M.D.)

diagnosis. The intensely red, advancing annulus usually is macular; the central area may be indurated. The lesion clears from the center and may become bluish as it fades. There may be a single, several, or many lesions; they usually occur on the trunk or proximal extremity and may become quite large. The initial lesion may contain a central papule. The lesions are not pruritic, but a burning sensation may be described. Individual lesions persist from a few days to several weeks and may recur (Figure 1).

A possible case was defined as a patient with arthritis, as described above, with no exposure in a known hyperendemic area, who related a history of compatible skin lesions that were documented in insufficient detail to make a definite diagnosis of ECM.

The tick *Ixodes dammini* has been implicated as a vector of Lyme disease. 3.4.6 Ticks collected by the families of Cases 1 and 4 were identified as *Ixodes dammini* by Dr. Terry Schulze of the New Jersey State Department of Health and by Dr. Wayne Crans of Cook College, Rutgers University. Immune complexes were studied in some of the patients through the courtesy of Dr. David Gocke of UMD-Rutgers Medical School using a Clq agglutination assay. 11

The narrative summaries and Tables 1 and 2 describe the neighborhood cluster of 4 cases. Highlights of the 13 other definite and possible cases are presented in Tables 3 and 4

and in Figure 2. Followup for all cases is through March, 1981.

CASE 1

Erythema chronicum migrans developed following a tick bite in a nine-year-old boy in June, 1979. The lesions were present on the chest, under the arms, and on the legs. The lesions enlarged up to 15 cm in diameter with a well-defined, erythematous border and central clearing. They were not pruritic. Fatigue and malaise accompanied the rash. The rash subsided in one week.

Four months later, in October, the patient presented with a two-day history of swelling and pain in the left knee; his temperature was 100°F. The joint was aspirated, and the patient was put on bedrest and treated with aspirin (Tables 1 and 2). There have been two recurrences of arthritis in the left knee, in March, 1980, for two weeks, and in October, 1980, for six weeks.

CASE 2

This patient was hospitalized in July, 1978, at age six with aseptic meningitis. Intracranial pressure was increased; spinal fluid contained 100 lymphocytes/mm.³ There were no focal lesions and a specific etiology was not found. The illness resolved spontaneously.

In August, 1979, an effusion developed in the right knee. When seen in the emergency room two weeks later, the patient was afebrile and had a sedimentation rate of 27 mm/hr. Treatment consisted of aspirin and rest. Because the effusion persisted, the patient was hospitalized on September 6, 1979; his temperature was 102°F. The right knee was swollen but not tender. After evaluation, the joint was injected with methylprednisolone acetate (Depo Medrol®).

There have been two additional episodes of arthritis. In January, 1980, both knees became painfully swollen for several weeks, and in September, 1980, there was left knee swelling for two weeks.

CASE 3

A nine-year-old girl presented on September 27, 1979, with a one-week history of a limp. In July, a tick had been removed from her skin. The left knee was somewhat painful, warm, and swollen. The knee was aspirated. Treatment

	TABLE 1						
		Selected La	boratory Data				
	Sedimentation			ASO	Circulating		
Case	Rate (mm/hr)	Rheumatold Factor	ANA	(Units)	Immune Complexes		
1	38	Negative	Negative	100	+		
2	52	Negative	Negative	50	Not Done		
3	38	Negative	1:40*	400	+		
4	85	Negative	Negative	60	+		
*Speckled pa	ttern. Test was negative	on report in 11/79.					

		TABLE 2		
		Synovial Fluid Analysis		
Case	Leukocytes	Neutrophils %	Protein (gm/dl)	Bacterial Culture
1	14,750	Not Done	5.0	Negative
2	43,670	89	5.4	Negative
3	26,000	84	4.9	Negative
4	40.000	89	4.1	Negative

	T	ABLE 3	
Sporadic	Cases:	Demographic	Features

			Sport	auto Cases. Demographic reatures		
				ECM		
Case	Age	Sex	Onset	Probable Exposure	Definite	Possible
5	36	M	6/78	Burlington	+	
6	10	M	6/78	Cumberland		+
7	3	M	7/78	Monmouth	+	
8	56	M	8/79	Burlington		+
9	47	M	4/80	Burlington		+
10	55	F	5/80	Ocean	+	
11	49	M	6/80	Nantucket, MA	+	
12	31	M	6/80	Atlantic	+	
13	31	M	6/80	Cape May	+	
14	28	M	6/80	Somerset	+	
15	35	M	7/80	Ocean	+	
16	71	F	7/80	Southeastern, PA	+	
17	34	F	8/80	Atlantic	+	

consisted of bedrest and aspirin. The arthritis resolved within one week and has not recurred.

CASE 4

A small tick was removed from the left hand of this 12-year-old boy in early November, 1980. On December 4, 1980, the patient was hospitalized with a three-day history of right hip pain that had been noticed initially as difficulty walking after football practice. At admission, his temperature was 100° F. Flexion and internal rotation of the right hip were reduced. There was no rash. The right leg was placed in traction. The hip pain resolved and motion returned to normal in a few days, but right knee swelling developed as well as right wrist pain. The right knee was aspirated. The ASO titer was less than 60 units and the anti-DNAse B titer was 120 units (normal for age group is less than 170). Aspirin was begun on December 8, 1980, and by December 10, 1980, the patient was asymptomatic.

In January, 1981, the right knee became swollen again, but without pain. Aspirin was resumed and the mother observed diminution in swelling within two days. In mid-February, 1981, right knee swelling recurred, accompanied by left ankle pain. Aspirin was resumed and has been continued. A test for the HLA B 27 antigen was negative.

SPORADIC CASES

Ten definite and 3 possible cases, ranging in age from 3 to 71, have been identified (Tables 3 and 4, Figure 2). There are

TABLE 4 Sporadic Cases: Clinical Illness Other Than ECM						
Sporadic	Cases: Clinical Systemic	Illness Other	Neurologic			
Case	Symptoms	Arthritis	Disease			
5						
6	+	+				
7		+				
8		+				
9		+				
10	+	+				
11	+					
12						
13	+	+	+			
14						
15	+		+			
16		+				
17	+		+			
Total (N = 13)	6	7	3			

8 men, 3 women, and 2 boys in this group. All 13 patients had onsets between April and August; two were probably exposed outside of New Jersey (Cases 11 and 16). Except for Case 14, who was probably exposed in Somerset County, the remaining 10 cases had exposures in southern New Jersey.

ECM was accompanied by acute systemic symptoms, such as fever, malaise, headaches, and myalgias in six of these cases (Table 4). Seven cases had arthritis; this was recurrent in four, persistent for five months in one and of bried duration in two. The knee was the most frequently involved joint (in five cases), followed by the ankle (in three cases). Three cases had neurologic involvement. Case 13 had a clinical picture compatible with a meningoencephalitis, and Cases 15 and 17 had documented aseptic meningitis and facial diplegia. Case 15 also had a peripheral neuropathy. All three patients with neurologic signs gradually have improved. No cardiac abnormalities were noted in any of the sporadic cases.

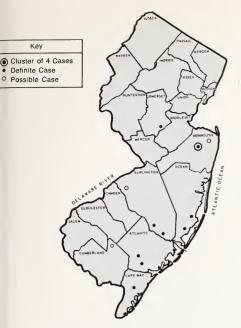
Sera from Cases 10 and 11 were tested for immune complexes within two months of onset. Both samples were negative.

TICK IDENTIFICATION

The mother of Case 1 removed a tick from the patient's sister in April, 1980, and placed it in the freezer. The tick recovered from Case 4 four weeks before the onset of his arthritis also was saved. Both arthropods were identified as *Ixodes dammini*.

DISCUSSION

Lyme arthritis was recognized as a distinct clinical entity in 1975 during the investigation of an unusual cluster of arthritis cases in three small Connecticut communities.1 Subsequently, it has become clear that parts of coastal Connecticut, Long Island, and Massachusetts are endemic for this condition.6 There is a focus of activity in the upper midwest, and a few cases have been recognized in mid-Atlantic states, California, Nevada, and Georgia.5,6,10 The current series is the first clinical report of a group from New Jersey. The ease with which these cases were found suggests that Lyme disease may be relatively common in this state as well. The geographic distribution of these cases (Figure 2) suggests that southern New Jersey, especially from Monmouth County (south and east) towards the shore, may be the region where the disease is most common. However, Case 14 was exposed while on a fishing trip on the Raritan River



gure 2—Lyme disease in New Jersey, 1978-1980. Sites of obable exposure of 15 cases acquired in the state.

Somerset County. Additional experience throughout the ate will be necessary to clarify these observations.

In Connecticut, Lyme disease most commonly appears etween May and November. ECM is more common early in the season and arthritis arises later. Similarly, ECM began in the cases of the present series between April and August, hile arthritis began as late as December.

The diagnosis of Lyme disease depends on clinical and bidemiologic criteria since its etiology is unknown. Allough Case 1 had a typical ECM rash, it occurred four onths prior to the onset of arthritis and its diagnostic apportance was not appreciated initially. Cases 2, 3, and 4 id not exhibit ECM, but their clinical course, geographic roximity to Case 1, and the finding of the putative vector n Case 4 before he developed arthritis suggest that Lyme sease is the best diagnosis for all of these illnesses. The elationship of the aseptic meningitis to the arthritis in Case is uncertain.

The reported interval between the bite of a tick transitting the agent of Lyme disease and the onset of ECM may a from 3 to 20 days, based on nine observations. ECM may cur alone or it may be accompanied by fever, malaise, were headache, and stiff neck. Such symptoms were promient in 6 of the 13 sporadic cases (Table 4). In untreated tients, the rash persists for about three weeks, with a range om a few days to several months. 12

Arthritis develops in more than half of the patients with itreated ECM within four days to more than a year after iset of the rash. Most patients who develop this man-estation have the initial attack of arthritis within a few onths. 12 As in the present series, large joints, especially the ises, are most commonly affected, and the attacks tend to 5 brief, often less than a week, but recurrent and separated

by long periods of remission.^{2,12} Rare individuals develop a chronic synovitis but in most instances, attacks become less frequent with time.⁷

Neurologic manifestations, developing within a few months of ECM, have been common among the cases reported by Steere and his colleagues. Meningoencephalitis, cranial nerve palsies, and peripheral radiculopathies have been observed, mainly in young men.* The neurologic illnesses tend to improve with time. Some of the most severely affected have been treated with glucocorticoids during the peaks of their illnesses. Cases 13, 15, and 17 had neurologic problems associated with their illnesses. All three had a meningoencephalitis and Cases 15 and 17 also had facial diplegia. Neurologic illness may be overrepresented in this series, since these more dramatic illnesses may have been more likely to have been diagnosed.

Transient cardiac abnormalities have occurred in association with ECM as well and have been noted most often in young men. Variable degrees of AV block, including complete heart block, is the most common finding. EKG and scintigraphic evidence of diffuse myocarditis often is present, but valvular involvement has not been observed. Carditis was not documented in any of the present series.

Steere et al. have emphasized several immunologic phenomena in Lyme disease. Cryoglobulins and immune complexes usually can be detected early in the course of ECM, and circulating complexes tend to persist longer in patients with neurologic or cardiac disease. ¹³ Elevated levels of IgM and cryoglobulins in serum early in the course of the skin disease may define a subgroup that is likely to develop other manifestations. ¹⁴ In the present series, the three cases from the neighborhood cluster who were tested exhibited circulating complexes early in their course, while the two sporadic cases who were tested early did not. The reason for this disparity is unclear, but it simply may reflect the small numbers involved.

Penicillin has been shown to reduce the subsequent occurrence of arthritis.¹² Among penicillin-allergic patients, tetracycline seemed to be beneficial, while erythromycin did not shorten the course of ECM. Despite the lack of a demonstrated etiologic agent and the absence of definitive clinical data supporting antibiotic treatment, penicillin or tetracycline probably should be given to patients who have the characteristic skin lesion, ECM. Antibiotics have not been beneficial in preventing neurologic or cardiac disease, nor is there data that they are useful after arthritis already has developed.

The only preventive measure currently available is minimizing exposure to tick-infested areas and the prompt removal of any tick.

Lyme disease is now a reportable condition in New Jersey. The State Department of Health actively is interested in learning how common this disease is and where it occurs in the state. Disease reports and active case findings in defined areas will provide the basis for this descriptive epidemiology. It may be possible to mount field studies of the putative vector in areas of high and low incidence. Clinical and laboratory studies of Lyme disease also are important to better define the clinical spectrum of this complicated condition, to learn more about its specific manifestations and management, and to identify the etiological agent.

SUMMARY

This is the first comprehensive report of Lyme disease in

New Jersey. This tick-borne condition was recognized in 1975 in Connecticut; most diagnosed cases have been from the Long Island Sound and Cape Cod areas. Seventeen cases of Lyme disease are reported, most of whom were exposed between April and November in the southern part of New Jersey. The cases include 6 children and 11 adults. Four of the patients were from a small neighborhood in Monmouth County. The clinical spectrum in this group ranged from self-limited erythema chronicum migrans (ECM), the hallmark of this disease, to mono- or oligoarticular arthritis (with either single or recurrent episodes), to neurologic illness with cranial neuropathies and meningoencephalitis.

Early therapy of ECM with penicillin or tetracycline probably hastens resolution of the acute illness and may reduce the risk and duration of subsequent arthritis. Treatment following resolution of the skin lesion is supportive. Avoidance or prompt removal of the tick vector are the only preventive measures.

Lyme disease is now a reportable condition in New Jersey, and it is important that physicians consider this diagnosis since early antibiotic therapy of ECM may prevent chronic sequellae. Work on the ecology of the suspected tick vector is in progress, and, as more cases are reported, the epidemiology and clinical spectrum of Lyme disease in this state better can be characterized.

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DIVISION

STATE OF THE ART

Nuclear Magnetic Resonance (NMR): A New Imaging Modality*

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Nuclear Magnetic Resonance imaging is a new, noninvasive diagnostic technique that utilizes radio waves versus x-ray radiation. The images reflect the chemical content of tissues. Here is a review of he basic theory, clinical correlation of imaging parameters, various maging techniques, comparison to computed tomography, and selected case studies

uclear Magnetic Resonance (NMR) has been utilized as an analytical technique for many years in NMR technique for many years in NMR valuation of organic molecules in vitro. Within the last ten ears, these NMR techniques have been used for in vivo neasurements and imaging. Four years ago, the first NMR mages were published. Scan times were over 30 minutes for hese images. Within the past year, researchers have generated NMR images of human and animal subjects in under 3 ninutes, with resolutions of about two millimeters, a major mprovement in just a few years.

HEORY OF OPERATION

NMR works on the principle that all nuclei with an odd umber of protons or neutrons behave like small magnets. his occurs because the nucleus is spinning, and this moving harge is like a small electric current. Since an electric current ill produce a magnetic field, the nucleus becomes a tiny lectromagnet whose poles are aligned with its spin axis. When an external magnetic field is applied, the nuclei will lign their magnetic moment, or spin axis, with the magnetic eld. However, due to the magnetic field, the nuclei also will recess, much like the spinning top shown in Figure 1. The ate at which the nucleus precesses is proportional to the lagnetic field. The frequency of precession, f, equals a onstant times the strength of a magnetic field, H₀ (f=\gammaH₀), his is known as the Larmor frequency. If a radio

frequency (RF) is applied at the Larmor frequency, it will cause the nucleus to flip or turn around and go to a high energy state. When the radio frequency energy is removed, the nucleus will return to its lower energy state and radiate back these radio waves; or it will dissipate the energy thermally by coupling to the surrounding material.^{2,3,19} Since hydrogen is the most abundant odd mass in animals (its nucleus contains a single proton) and gives a comparatively strong signal, this element is the easiest to be evaluated by NMR.

Three important parameters that must be considered in understanding NMR imaging are: proton density and spin-lattice (T_1) and spin-spin (T_2) relaxation times.

Proton density can be compared to the intensity of the radio frequency signal received because the higher the number of hydrogen nuclei, the greater the signal. Proton density mainly has been used in the reconstruction of soft tissue images, producing images similar to those of computerized tomography (CT). For example, fat tissue has a high water content and, therefore, a high proton density. Bone is lower in density, and air found in mastoids is lower yet.6.10

T₁ and T₂ represent relaxation times, i.e. the time it takes the nucleus to reach equilibrium when returning from the

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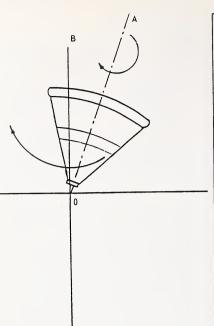


Figure 1—Top spinning at its own axis O-A while precessing about the O-B axis.

high energy state to equilibrium in its lowest energy state.

T₁ or spin-lattice relaxation time is the time constant that characterizes the interaction between the nucleus and its environment (lattice). This results from the interaction of a nucleus with its physical surroundings.

T₂ or spin-spin relaxation time characterizes the spin interactions between a nucleus and its neighboring nuclei.

Some points to note are:

- T₁ is always greater than or equal to T₂.
- In solids, T₁ is long; T₂ is short.
- In liquids, T2 approaches T1.6,7,19

In water, T_1 and T_2 are approximately three seconds. In ice, T_1 lengthens to minutes and T_2 shortens to tens of microseconds.

T₁ is the more useful parameter and has been used in the imaging of soft tissues. Indeed, the range of T₁ is very large. For example, in the kidney, the cortex has a T₁ of 500 microseconds and the medulla has a T₁ of 800 microseconds, a range of 1.6:1. Also, T₁ has been used for cancer detection. Increased T₁ has been detected in various tumor tissues, as shown in the Table. The increased T₁ has been attributed to a quantitative increase in the water content of the tumor tissues. ^{1.6:7,14} This also would apply to pathologies such as pneumonia, glaucoma, and ascites—all associated with increased fluid. However, some researchers have shown that the increase in the T₁ value mainly is due to a qualitative increase of ions in the water. ^{4.14}

In anaplastic tissue, there seems to be an increase in alkali cations that are found in undifferentiated, embryonic tissues. The consensus is not clear about the exact meaning of these values. The use of T_1 in diagnosis results from using the raw numbers and using the relaxation time for forming an image. Available information indicates that T_2 and the ratio T_1 : T_2 increases in cancer tissue.^{4,5,8,13,15}

TABLE

Representative Normal Rodent Values and Their Neoplastic Counterparts

Hydrogen T. (in seconds)

	Normal	Walker Sarcoma
Muscle	0.538 ± 0.015	0.736 ± 0.002
	Normal	Novikoff Hepatoma
Liver	0.293 ± 0.010	0.826 ± 0.013

²³Na Signal Intensity

	Normal	Walker Sarcoma		
Muscle	76 ± 7	219 ± 34		
	Normai	Novikoff Hepatoma		
Liver	90 ± 7	257 ± 24		

31Phosphorus T₁ (in seconds)

	Normal	Walker Sarcoma
Muscle	2.19 ± 0.05	5.38 ± 0.68
	Normal	Novikoff Hepatoma
Liver	2.33 ± 0.14	5.98 ± 0.57

In addition to hydrogen, other elements have been utilize in the NMR technique. ²³Na (sodium 23) has been di covered to possess a very large difference via proton densi from normal and tumor tissues. ³¹P (phosphorus 31) ha received attention in the diagnosis of cancer. ^{4,5,20}

Because ATP, the storehouse of cellular energy, is phosphorous compound, ³¹P also draws much interest measuring dying tissue, such as a myocardial infarctio which would demonstrate a lower ATP level. However, phosphorus and sodium nuclei transmit much weaker signathan hydrogen. At present, the information they provide too low in signal quality for use in imaging. Nevertheless, the qualitative analysis of a biopsied tissue, their readin might yet prove to be useful. ^{15,20}

IMAGING TECHNIQUES

During the last few years, a number of NMR techniqu have been developed for producing two-dimensional imag of the spin density distribution.

Generally, forming an NMR image requires that tobject interact with two magnetic fields: a static one thousally has a superimposed magnetic gradient and one thaternates at the radio frequencies. The radio field causes to nucleus to flip, as described earlier.

A television picture is made up of hundreds of scannilines and each line can be considered to be composed thousands of dots of varying brightness. However, to genate the image dots in NMR imaging, a number of scanniapproaches are under investigation.

One NMR scanning method secures information from



Figure 2—Fonar model, QED 80, installed for clinical evaluation at Ross, Lie, Tompson, and Associates, Mayfield Heights, Ohio.

each point (or dot) by narrowly focusing the magnetic field on a point and then moving to the next one, thus completing a scanning line.

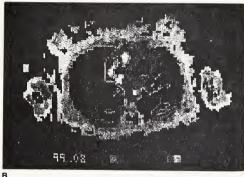
This "focused" NMR technique or Fonar method, is a patented scheme identified with Raymond Damadian (who founded his own Fonar corporation), one of the pioneers in the field of NMR imaging. 4.14 At present, a Fonar model, QED 80, has been installed at Ross, Lie, Tompson, and Associates, a private radiology group in Mayfield Heights, Ohio (Figure 2).17 The installation of the device in January, 1981, at a cost of \$550,000, marked the first continuing clinical trial of NMR imaging. The modified QED 80 requires two minutes to complete a slice and achieves a resolution of 3 mm when using proton density. Its cursor feature provides the operator with a T₁ number for any particular point.

Instead of focusing at one point at a time, other investigators focus on a line each time. The field can be manipulated to provide point source information, since each point along the line has a unique frequency. Therefore, it is possible to obtain point source information. This process is basically the one used by Crookes, at the University of California. 2-3 He is supported by Pfizer, which reportedly has sold its research to Dynasonics. The Crookes team used a four-minute scanner with a resolution of 0.47 mm. Maudsley, at Columbia University, is conducting research on a scanner that would image many lines at a time, thereby decreasing the scan time. 17

Lauterbur, of Stony Brook, a pioneer in the field, applies is "Zeugmatographic" system, which is similar to the basic computed tomography system involving many projections, o reconstruct a cross section.^{11,12} It is a system which offers capability of more possible views than the conventional computerized tomography system delivers. As of 1980, the iverage time approximates 21 seconds per slice at a resolution of 2.5 mm.

Also, employing reconstruction methods that are similar o CT scan systems utilizing Fourier analysis are Holland and Hawkes in England. Edelstein, at General Electric, nakes use of the spin warp method, relying on the phase elations of the RF signal. This information is processed in a ystem that is similar to CT reconstruction techniques. Before joining GE, Edelstein was with the University of Aberdeen, Aberdeen, Scotland. While there, he published cans that took 128 seconds and provided 7.5 mm resolution, vith proton density and T₁ reconstruction capability. 6.7.8





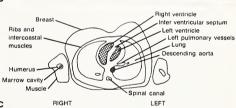


Figure 3—Axial section through the chest at T-5, of a 33-year-old female; A—proton density; B—relaxation time, T_1 : C—diagram.

Finally, Hinshaw, of the University of Nottingham, England, devised a method of focusing on the desired region by effectively wiping out the signals from other parts of the sample.^{13,15}

The three basic techniques—looking at one point at a time, viewing a line at a time, and examining a section at a time—represent the spectrum of strategies. The increased use of computing decreases the time required for imaging, and the NMR scanning process is reinforced by its reliance on computed tomography software, which has been the focus of much research in the past ten years. Major research in NMR likely will focus on the improvement of the electrical hardware producing the electromagnetic fields and receiving signals.

CASE STUDIES

Case 1—This is a normal section of the chest of a 33-yearold female. Figure 3A is the proton density reconstruction; Figure 3B shows T_1 reconstruction; Figure 3C is an anatomical representation of the section. The chest and

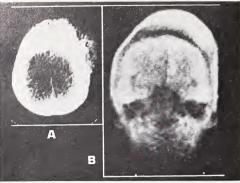


Figure 4—Intrinsic bone tumor of the vault in a 73-year-old woman. Noncontrast axial transverse CT scan (a) and coronal NMR scan (b) show pronounced thickening of the vault with spicules of new bone extending into the thickened overlying scalp. The lack of intracranial extension was appreciated better on the NMR scan.

breast can be seen best on the proton density picture, but the cardiovascular system is delineated best in the T_1 reconstruction. The thinner right ventricle, the thicker left ventricle, and the pulmonary artery can be viewed better in the reconstruction of the T_1 images. This is the spin warp technique which uses phase information and then uses a computer to reconstruct the image. This scan comes from Edelstein el al., while at the University of Aberdeen, Scotland.

Case 2—This is a 73-year-old woman with a bone tumor of the calvaria (Figure 4). The CT scan (left) does not delineate well the extent of the lesion's involvement. Specifically, does the tumor invade inside the cranial vault? The NMR coronal proton density scan (right) shows a white band around the head which is the scalp. The scalp's fat is high in hydrogen content, and this causes the scalp's visualization. CSF is not seen, owing to the fact that the settings on the images were selected out. The tumor involvement seems better appreciated here than on the CT image; it does not invade into the cranial vault. The scan comes from the Holland and Hawkes group at the University of Nottingham, England, and basically uses a reconstruction method.

SUMMARY

NMR images possess several advantages over computed tomography. Instead of reporting the absorption of x-rays, they report on chemical composition and, thus, they give an improved identification of the pathology of the area. ²⁻¹³ NMR images do not require exposure to ionizing radiations; the scanning can be accomplished electronically without moving parts; and bone (which has a low hydrogen content) and air spaces do not affect NMR images as do CT and ultrasound. In addition, images can be made of planes taken at any angle through the object, since the imaging plane may be controlled electronically.

Investigations have found no potential hazards, such as an increased incidence of mutations or chromosome abnormalities in cells in animals exposed to the conditions of NMR imaging.^{2,7,21} Indeed, most of the early NMR images

were taken of the researchers themselves. Some have bee exposed to more than 12 hours, with some portion of the body, with no apparent ill effects. Research is continuing t examine the potential dangers of NMR energy waves whe they impinge on implanted metallic devices, as well as the effect of these waves on the physiological properties of tissues. 1.2.3.14

NMR scanners probably will be available commerical within a few years. Initially, these units are expected to co about the same as a CT scanner.

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Starch Granulomatous Peritonitis: A Case Diagnosed 16 Years Following Surgery*

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A patient with starch granulomatous peritonitis first developed symptoms 9 years after surgery; diagnosis was not made until 16 years after surgery. Long-term steroid therapy did not cure the disease. Cornstarch peritonitis must be considered in patients with granuloma formation in the peritoneum.

urgical gloves lubricated with cornstarch treated with epichlorhydrin (a known skin irritant) and 2 percent magnesium oxide initially were used in clinical practice in the early 1950s. Although generally considered innocuous, there have been several reports of an acute inflammatory reaction when the cornstarch is introduced accidentally into the peritoneal cavity. The resulting clinical syndrome consisting primarily of fever, abdominal pain, and signs of peritoneal inflammation typically develops within two to four weeks following an intraabdominal surgical procedure. If the diagnosis is not considered, reoperation is the unfortunate sequela.

This report describes a patient who developed typical signs and symptoms of cornstarch peritonitis nine years following surgery, but the signs and symptoms remained undiagnosed for an additional seven years.

CASE REPORT

A 51-year-old married, Caucasian female was admitted to the Veterans Administration Medical Center in September, 1980, for evaluation of ascites. In the two months prior to admission, she experienced increasing fatigue, malaise, dyspnea on exertion, and increasing abdominal girth. The patient denied alcohol abuse. She delivered two children by sesarean section in 1962 and 1964, but had no other surgery.

In 1973, the patient was admitted into another hospital because of malaise, weakness, and abdominal distension.

Physical examination reportedly revealed a pelvic mass which necessitated an exploratory laparotomy. The surgeon stated the gross appearance of the abdominal cavity as being consistent with "metastatic carcinoma involving the liver, intestines, ovaries, uterus, and fallopian tubes." No attempt was made at surgical debulking. An omental biospy specimen was interpreted as granulomatous disease; stains for fungi and mycobacterium were negative.

The patient was transferred to another university hospital where supplementary history revealed that her mother and sister had tuberculous meningitis and salpingitis, respectively. The patient's tuberculin test was strongly positive. She was treated for nine months with isoniazid and rifampin. She developed deep venous thrombosis and pulmonary emboli during admission and was discharged on Coumadin®. No additional diagnosis was established. In 1974, recurrent pulmonary emboli necessitated exploratory laparotomy with inferior vena cava ligation. Multiple adhesions and granulomatous enterocolitis were seen at surgery. Omental biopsy showed fat necrosis with xanthogranulomatous nodules. Extensive workup for an infectious etiology of granulomatous disease was negative. Without a definitive

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Figure—Periodic acid Schiff stain of the peritoneal biopsy. Multiple starch granules (arrows) are identified 900 times.

diagnosis the physician prescribed prednisone. Erythrocyte sedimentation rate (ESR) decreased from 110 to 17. She was treated with steroids for one year with resolution of her signs and symptoms. The signs and symptoms appeared within three months of stopping the corticosteroids. Steroid therapy was reinstituted six separate times with resolution of the disease manifestations while on therapy, only to have them reappear upon discontinuation of the drug.

On admission to the hospital, the patient was afebrile and vital signs were normal. The conjunctiva were pale. The abdomen was distended with a "fluid wave" and shifting dullness, but no organomegaly was appreciated. Pelvic examination revealed a 1 cm firm nodule on the posterior vaginal wall. The hemoglobin was 11 gm/dl; hematocrit, 33; white cell count, 6,100/mm3 with a normal differential; platelets, 520,000/mm³; ESR, 119; and multiple chemistry profile and urinalysis were normal. Chest x-ray and electrocardiogram were normal. Ascitic fluid obtained by abdominal paracentesis revealed protein 6.8 gm/dl; white blood cells 6,800/mm3 with 74% neutrophils, and 26% lymphocytes; LDH was 71; and glucose 98 mgm/dl. Starch granules were not seen in the ascitic fluid. Cultures for bacteria and fungus were negative. Bone marrow aspirate and biopsy were nondiagnostic; iron stores were normal and marrow cultures were negative. Small and large bowel x-rays were normal.

A diagnostic laparotomy was performed. The peritoneum appeared "grossly normal" according to the surgeon. Random biopsies were diagnostic of starch granulomatous peritonitis. The patient was discharged without further therapy. Eight months after discharge her signs and symptoms have not changed, but she remains totally functional.

The diagnosis of starch peritonitis was confirmed by microscopic examination. With polarized light microscopy, the starch granules had the configuration of the Maltese cross. Staining with the periodic acid Schiff reagent revealed the red staining which is characteristic of carbohydrate (Figure).

The initial peritoneal biopsy obtained in 1973 was reviewed. With great difficulty the diagnosis of starch peritonitis was confirmed.

DISCUSSION

Halsted introduced gloves to protect the surgeon from the disinfectants used in his era; some patients undergoing

abdominal procedures have experienced complications re lated to the agents used to lubricate the gloves. In the 1940s talc replaced water as a lubricant. Talc was quickly aban doned because of severe foreign body reactions with result ant fistulae and peritonitis. By 1950, cornstarch was used universally. However, it was not until 1956 that cornstarel peritonitis was reported. The incidence of this syndrome i low. Aarons and Fitzgerald recognized it in only 6 of 6,750 consecutive operative procedures (less than .01 percent). It i likely that starch peritonitis is far more common, bu patients may be asymptomatic and, in most patients, the starch is absorbed.

Cornstarch peritonitis occurs after routine operations bu no one procedure carries an increased risk. Symptoms begin within four weeks and consist of fever, diarrhea, and ab dominal pain. Peritoneal irritation usually is not localized but a mass may be palpable. Ascites is notable. The symptoms and signs usually are sufficient to make the diagnosis. Warshaw suggested the ascitic fluid should be analyzed for starch granules to aid in the diagnosis. The diagnosis may not be considered if the history and physica examination are not typical, as in our case. If exploratory laparotomy is performed, the peritoneum usually is studded with nodules that are disseminated throughout the abdominal cavity and often are mistaken for neoplasia as in our patient. Biopsies may be misinterpreted as showing a non-specific foreign body reaction.

"The peritoneum usually is studded with nodules that are disseminated throughout the abdominal cavity and often are mistaken for neoplasia."

The etiology of starch peritonitis is understood poorly. It has been postulated that the amount of cornstarch introduced is an important determinant since the longer the starch remains unabsorbed the more severe the reaction. The possibility of a hypersensitivity reaction also has been postulated.5 Bates reported a positive cornstarch skin test in a patient with this syndrome. Goodacre et al. demonstrated that lymphocytes from patients produced macrophage inhibition factor when exposed to starch.5 However, MacQuiddy and Tolman failed to produce hypersensitivity in rabbits or guinea pigs injected with cornstarch.7 Others have failed to confirm the positive skin test phenomenon and have failed to exacerbate the disease on reexposure to starch. 4,8 Harcourt and Sawyer suggested that substances in bile and pancreatic fluid together with starch induce the granulomatous reaction.9 From these hypotheses, it is impossible to state whether our patient's disease was amplified by the numerous operative procedures. We confirmed she did have histological evidence of starch peritonitis at the time of the initial peritoneal biopsy.

Conservative management of cornstarch peritonitis has been successful. Prednisone has been used but its efficacy has not been proved. Our patient was treated empirically with prednisone and responded, but symptoms returned following cessation of therapy. This exacerbation phenomenon has been seen in other patients with the syndrome. Indomethacin also has been tried in a few patients with limited success.

There have been over 100 cases of this syndrome reported n the literature. One patient, reported by Cox, had a protracted course that resulted in a diagnosis 4 years ollowing surgery. Our patient remained undiagnosed for 6 years, which suggests that care should be made to exclude his entity when the clinical picture is granulomatous perionitis.

SUMMARY

A 51-year-old female patient was admitted to the hospital with recurrence of fever, malaise, dyspnea on exertion, and increasing abdominal girth, seven years after treatment for granulomatous disease of the peritoneum with antituberculous therapy without resolution of her disease. The cultures and stains for tubercle bacilli and fungi had been negative. Empirical treatments with glucocorticoid gave symptomatic relief but the problem recurred upon discontinuation of the glucocorticoid.

On admission to the Veterans Administration Medical Center, she was afebrile and had pale conjunctiva and ascites. Laboratory data were not diagnostic. Cultures of ascitic fluid for bacteria, mycobacteria, and fungi were negative. Diagnostic laparotomy revealed a grossly normal peritoneum but histologic examination of random peritoneal biopsies was positive for starch-induced granulomatous peritonitis.

This case is unusual in that the patient's abdominal surgical procedure, i.e. cesarean section, was performed 16 years prior to the diagnosis of her disease and that 9 years

elapsed before her disease initially manifested itself. Although manifestations of starch peritonitis usually appear within four weeks following intraabdominal surgery, the diagnosis should be considered in all patients with granulomatous peritonitis.

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THERAPEUTIC DRUG INFORMATION

New Drugs: Part One*

This information is compiled by the International Pharmaceutic Drug Information Center (IDIC), affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences of Long Island University.

n response to numerous requests, the following information concerning new drugs marketed in 1981 is provided in a four-part series; this article is the first part.

ALBUTEROL (VENTOLIN®, GLAXO; PROVENTIL®, SCHERING)

Albuterol (known internationally as salbutamol) is a relatively selective beta2-adrenergic bronchodilator for oral inhalation. It is indicated for the relief of bronchospasm in patients with reversible obstructive airway disease. Albuterol is contraindicated in patients with a history of hypersensitivity to any of its components. As with other adrenergic aerosols, the potential for paradoxical bronchospasm should be kept in mind. Fatalities have been reported in association with excessive use of inhaled sympathomimetic drugs. Albuterol should be used with caution in patients with cardiovascular disorders, including coronary insufficiency and hypertension; in patients with hyperthyroidism and diabetes mellitus; and in patients who unusually are responsive to sympathomimetic amines. As albuterol has been shown to be teratogenic in animals, it should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Safety in nursing mothers as well as safety and effectiveness in children under the age of 12 years have not been established.

Although the incidence of certain cardiovascular effects is seen less frequently with albuterol than with other sympathomimetic agents, adverse reactions reported include: palpitations, tachycardia, hypertension, angina, vomiting, vertigo, central nervous system stimulation, insomnia, tremor, nausea, headache, unusual taste, and drying or irritation of the oropharynx.

Sympathomimetic aerosol bronchodilators or epinephrine should not be used concomitantly with albuterol. It should be administered with caution to patients being treated with monoamine oxidase inhibitors or tricyclic antidepressants, since the action of albuterol on the vascular system may be potentiated. Beta-receptor blocking agents and albuterol

inhibit the effect of each other and, thus, should not be administered together.

The usual dosage for adults and children 12 years and older is two inhalations repeated every four to six hours; in some patients, one inhalation every four hours may be sufficient. More frequent administration or a larger number of inhalations is not recommended. Each actuation delivers 90 mcg of albuterol from the mouthpiece.

Albuterol is supplied as a 17-gram canister with an adapter for oral inhalation and patient's instructions for use.

ALPROSTADIL (PROSTIN VR PEDIATRIC®, UPJOHN)

Alprostadil, also known as prostaglandin $E_{\rm I}$, is indicated for palliative treatment to maintain temporarily the patency of the ductus arteriosus until surgery can be performed in neonates with congenital heart defects such as pulmonary atresia, pulmonary stenosis, tricuspid atresia, Tetralogy of Fallot, interruption of the aortic arch, coarctation of the aorta, or transposition of the great vessels. Alprostadil should be administered only by trained personnel in facilities that provide pediatric intensive care. Alprostadil should not be administered to neonates with respiratory distress syndrome, and should be used cautiously in patients with bleeding tendencies. Patients receiving this agent must be monitored closely as outlined in the package insert.

The most commonly observed adverse reactions include: apnea, fever, seizures, flushing, bradycardia, hypotension, and tachycardia. Other adverse effects include: cardiac arrest, edema, diarrhea, disseminated intravascular coagulation, and sepsis. Refer to the package insert for those adverse

^{*}The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians. The Director of the Center is Jack M. Rosenberg, Pharm. D., Ph.D.; the Consultant is Walter A. Modell, M.D. This month's column was prepared by J.M. Rosenberg, Pharm. D., Ph.D.; H.L. Kirschenbaum, Pharm.D.; Ghazala Saleem, M. Pharm., M.S.; Jayne Ritz, R.Ph.; and Frances P. Martino, R.Ph. Correspondence may be addressed to the International Pharmaceutic Drug Information Center, 81 DeKalb Avenue, Brooklyn, NY 11201.

reactions observed in less than I percent of the treated nationts.

There has been no interaction potential reported to date. Alprostadil solutions preferably should be administered via continuous intravenous infusion into a large vein. It may be administered through an umbilical artery catheter placed at the ductal opening. Dosage is begun with 0.1 mg alprostadil per kg of body weight per min, which may be increased or decreased depending upon patient response.

Alprostadil is available in a 500 mcg/ml ampoule.

AMINOGLUTETHIMIDE (CYTADREN®, CIBA)

Aminoglutethimide is an inhibitor of adrenal cortical steroid synthesis. It is indicated for the suppression of adrenal function in selected patients with Cushing's syndrome. However, as aminoglutethimide does not affect the underlying disease process, it is used primarily as an interim measure until other means of therapy such as surgery can be undertaken, or in cases where such therapy is not appropriate. Aminoglutethimide is contraindicated in patients who have exhibited serious and/or severe hypersensitivity reactions to it or to glutethimide. Aminoglutethimide also may suppress aldosterone production by the adrenal cortex and may cause orthostatic or persistent hypotension. The blood pressure should be followed in all patients at appropriate intervals. Aminoglutethimide is known to be teratogenic, and if used during pregnancy, the patients should be apprized of the potential hazard to the fetus. Safety and effectiveness in children have not been established.

The most frequent adverse effects noted include: drowsiness, morbilliform skin rash, nausea, and anorexia. Other adverse effects reported include: neutropenia, leukopenia, decreased hemoglobin and hematocrit, adrenal insufficiency, hypothyroidism, masculinization, headache, dizziness, orthostasis, hypotension, tachycardia, pruritus, fever, myalgia, and elevations in SGOT, alkaline phosphatase, and bilirubin.

The metabolism of dexamethasone is enhanced by aminoglutethimide, and, thus, if a gluococorticoid is indicated hydrocortisone should be prescribed.

Treatment should be instituted in a hospital until a stable dosage regimen is achieved. The adult dosage is 250 mg orally four times a day (preferably at six-hour intervals) and may be increased in increments of 250 mg daily at one-to

two-week intervals up to a total daily dose of 2 grams. Refer to the package insert for complete dosage information.

Aminoglutethimide is supplied as 250 mg, white, round and scored tablets.

AMILORIDE HC1 (MIDAMOR®, MERCK SHARP & DOHME)

Amiloride HC1 is a potassium-sparing diuretic that is not an aldosterone antagonist. It is indicated as adjunctive treatment with thiazide diuretics or other kaliuretic diuretics for CHF or hypertension to prevent development of hypokalemia or restore normal serum potassium in the hypokalemic patient. Amiloride HCl rarely should be used alone due to its weak (compared to thiazides) diuretic and antihypertensive effects but may be used alone when persistent hypokalemia has been documented. Amiloride HC1 is contraindicated in patients who are hypersensitive to it, in patients with renal failure, and in patients with elevated serum potassium levels (>5.5 mEg/1). Amiloride HC1 should be avoided in diabetic patients, discontinued at least three days before glucose tolerance testing, and should be used cautiously in patients with metabolic or respiratory acidosis. Safety in pregnant and nursing women and safety and efficacy in children have not been established.

Amiloride HCl usually is well tolerated, with nausea, anorexia, abdominal pain, flatulence, and mild skin rash being the most frequently reported minor adverse reactions. Hyperkalemia is the most significant adverse reaction associated with amiloride HCl, and, thus, potassium levels should be monitored in all patients. Refer to the package insert for a complete list of adverse effects.

As amiloride HC1 decreases the renal clearance of lithium thus increasing its serum level and increasing the risk of lithium toxicity, concomitant use is best avoided. Potassium supplements or other potassium-sparing diuretics should not be administered simultaneously due to the risk of producing hyperkalemia.

Amiloride HC1 should be administered with food. The usual initial dosage is 5 mg daily. Dosage may be increased to 20 mgs daily, but doses greater than 10 mg daily rarely are needed. Consult the package insert for complete dosing information.

Amiloride HC1 is supplied as 5 mg, yellow, diamondshaped, compressed tablets.

PEDIATRIC BRIEFS

Selected Abstracts with Comments*

Rango N: Health and society education in a liberal arts college: A curricular strategy. J Med Educ 56:994, 1981.

Science and society programs in colleges are not successful because of the superficiality of "baby science" courses given to nonscientists and the trendy or relevancy version of social science given to science majors. Interdisciplinary health science education should focus on three objectives: introduction of the logical processes for establishing causality; identification of the limits of knowledge; and development of familiarity with problems of decision making under conditions of uncertainty. These objectives can be restated as: causal thinking, intellectual skepticism, and value judgment. Science can be characterized as organized skepticism. "Acquired through undergraduate interdisciplinary study, intellectual skepticism actually may enhance future professional-client interaction and improve the quality of individual participation in public decision making dealing with issues which, in the past, were left entirely to scientific and professional experts. Furthermore, a sense of skepticism also may benefit the future doctor, epidemiologist, or policymaker who has come to an early appreciation of the limited rationality of any therapeutic intervention and the latent hazards of professional altruism and institutional benevolence."

Comment: Rango does not provide solutions except that of rethinking and redoing undergraduate curricular structure based on these objectives. His arguments are persuasive and it is hoped that medical educators (i.e. admission committees) will take heed and encourage colleges to alter curricula. He says: "Here lies the responsibility of institutions of higher learning: the training of the future citizen to behave competently and conscientiously in protecting his own and the public interest; and the education of the future professional to understand the consequences of imperfect and value-laden knowledge in various domains of decision making, including the doctor's private office and public policy forums." It is essential that we try harder to accomplish these goals.

Simila S, et al.: Chronic lung damage caused by adenovirus type 7: A ten-year followup study. Chest 80:127, 1981.

In 1967 and 1968, 27 Finnish children were treated for severe adenovirus type 7 pneumonia. Twenty of 27 were reexamined ten years later. Six had bronchiectasis and 10 others had abnormal pulmonary function tests. These children had a greater incidence of asthma and other atopic diseases than the general population. No other historical factors were discerned, either prior or subsequent to the adenovirus pneumonia, to explain the severity.

Comment: Adenovirus has been associated with severe respiratory diseases; in some instances leading to respiratory

failure and fatality. Adenovirus has been implicated as a leading (the leading?) cause of antibiotic era idiopathic bronchiectasis in childhood. Certain strains are notoriously bad: types 1, 3, 4, 7, and 21. Acute adenoviral pneumonia may cause a necrotizing bronchiolitis followed by an obliterative phase. A mean of 16 percent of patients will develop bronchiectasis after "severe" adenovirus pneumonia. Almost all such patients are infants and young children (under age four). This is a bad bug and attempts to develop an effective vaccine are justified.

Yannas IV, et al.: Wound tissue can utilize a polymeric template to synthesize a functional extension of skin. *Science* 215:174, 1982.

Fluid loss and infections are major problems facing burn victims. The scientists at MIT and Harvard have developed a bilayer polymeric membrane which immediately and aseptically covers burns and serves as a template upon which the body builds new skin. The top layer is a silicone elastomer and the bottom layer is porous bovine collagen and glycosaminoglycan. Fibroblasts and endothelial cells advance from the wound edge into the plane between the two layers. Autologous basal epidermal cells can be seeded into the membranes before grafting. In the seeded membrane these basal cells reach confluence in less than two weeks, thereby forming sheets of keratinized epidermis between the layers of the membrane. There is no evidence of scar formation and new, functional skin is generated in under four weeks. In the few human subjects studied (most work was done on guinea pigs), no immunosuppression was necessary even to individuals with greater than 50 percent burns. Graft take was nearly 100 percent. There was no infection. Such grafts "provide a means for closing the largest full thickness skin wounds without delay and without requiring autologous epidermal grafts."

Comment: This preliminary report of a major scientific engineering achievement should not be dismissed as a pipedream. This development promises to revolutionize burn care.

^{*}Abstracts are from the Department of Pediatrics Newsletter, UMD-New Jersey Medical School, Vol. 7, No. 2, 1982. Selections are made by Richard J. Rapkin, M.D., Vice Chairman and Professor, Department of Pediatrics, UMD-New Jersey Medical School, and Medical Director of Children's Hospital, Newark, who is Editor; and by Coeditors, Franklin C. Behrle, M.D., Professor and Chairman, Department of Pediatrics, UMD-New Jersey Medical School, and Shyan C. Sun, M.D., Associate Professor, Department of Pediatrics, UMD-New Jersey Medical School, and Director of Neonatology, Children's Hospital, Newark. Correspondence may be addressed to Dr. Rapkin, Children's Hospital, 15 South 9 Street, Newark, NJ 07107.

Emkey RD: Aspirin (ASA) and analgesic nephropathy. *JAMA* 247:55, 1982.

Gall E: The safety of treating rheumatoid arthritis (RA) with ASA. *JAMA* 247:63, 1982.

Goldberg M: Analgesic nephropathy in 1981: Which drug is responsible? *JAMA* 247:64, 1982.

Forty-six patients with RA who had taken ASA continuously for ten or more years were studied. All creatinine and BUN levels were normal. The average dose of ASA ingested per patient was more than 30 kg. "The data from this study do not exclude the possibility that ASA ingestion in patients with RA might cause minor histological or functional renal abnormalities, but we conclude that ASA, taken by such patients in full therapeutic doses over many

years, does not cause serious renal disease."

Alternative therapy to ASA consists of newer nonsteroidal antiinflammatory agents. All of these drugs are capable of adversely affecting the kidney. They have not been used widely or long enough to be sure of their overall effects on the kidney. Therefore ASA remains, as it should be, the drug of first choice in treating RA.

Whether analgesic nephropathy, a major cause of chronic interstitial (previously called pyelo) nephritis, is caused only by analgesic combinations or predominantly by phenacetin (or its metabolic products, one of which is acetaminophen) is unknown. The most attractive hypothesis for the present is that the combination of ASA and phenacetin (or acetaminophen) is the most likely cause of analgesic nephropathy. Therefore, one should probably avoid such analgesic combinations.

Wilson JM, et al.: Failure of oral TMP-SMX prophylaxis in acute leukemia. N Engl J Med 306:16, 1982.

Jacoby GA: Perils of prophylaxis. N Engl J Med 306:43, 1982.

The prevention of sepsis, caused by gram negative enteric rods in granulocytopenic leukemics, has been a problem. Recently TMP-SMX has shown some promise. Two recent failures carefully studied revealed plasmid-associated resistance. These occurrences are most worrisome in view of the widespread use of TMP-SMX for such prophylaxis.

Comment: TMP-SMX supposedly avoids the dangers of continuous prophylaxis (superinfection with resistant organisms) because it does not destroy the anerobic flora of the gut, thereby reducing the chances of colonization with new and resistant organisms. Now these data raise concerns. We had not adopted TMP-SMX prophylaxis in our neutropenic leukemics while awaiting stronger evidence for benefit greater than risk. We will continue to await such evidence.

Asmar BI, et al.: Hematologic abnormalities after oral trimethoprim-sulfamethoxazole (TMP-SMX) therapy in children. *Am J Dis Child* 135:1100, 1981.

Fifty children were treated with TMP-SMX for ten days. Neutropenia developed in 34 percent and thrombocytopenia in 12 percent. The lowest PMNL count was 350; the lowest platelet count was 27,000. These signs were without clinical effect and resolved spontaneously but gradually "suggesting a toxic effect on hematopoiesis." It is prudent to assess WBC and platelets during therapy with TMP-SMX. Concomitant use of folinic acid may avoid these effects but this has not been studied.

Comment: This adds weight to the proposition that initial therapy for otitis media should be a relatively safe and

effective drug (e.g. amoxicillin). Use of alternative therapies should be based on need as determined by failure of the first drug because of bacterial resistance. The majority of otitis media treatment failures are not because of such resistance, but are due to persistence of sensitive organisms suggesting that longer therapy and/or higher doses are necessary. TMP-SMX toxicity is worrisome. The need for tympanocentesis and evaluation of the bacteriology is affirmed.

Herbild, O, et al.: Peritonsillar abscess; Recurrence rate and treatment. *Arch Otolaryngol* 107:540, 1981.

One hundred sixty-six patients who had simple I and D and no tonsillectomy for peritonsillar abscess were reviewed three-and-a-half to eight years later. The age range was 7 to 70 years (mean 26 years) and 106 patients were under age 40. Fifty percent of patients had no subsequent throat symptoms at all, 20 percent had recurrent pharyngitis, and 20 percent had recurrent peritonsillar abscess.

Comment: The evidence from this study suggests that only patients with recurrent peritonsillar abscess be considered for tonsillectomy. I would add that another study is necessary to prove even that. My own views, widely known I hope, are that tonsillectomy has precious few indications and peritonsillar abscess is not one of them.

Hight DW, et al.: The treatment of retained peripheral foreign bodies in the pediatric airway. *J Pediatr Surg* 16:694, 1981.

Among the most sophisticated and most difficult techniques for ailing children is that required for removing a foreign body from the bronchus of a young child. In addition to being a difficult procedure, the damage of the tracheobronchial tree and the lungs must be minimized in these young patients. This article presents eight cases in which small metallic or sharp foreign bodies or round smooth foreign bodies were localized and impacted in the distal tracheobronchial airway. A variety of techniques to remove them were utilized, each one successfully without damage or need for direct surgical intervention into the lung parenchyma.

Comment: The article highlights the pediatric surgeon's main concern which is pulmonary damage. Although it is urgent that the foreign body be removed, it is important that it is removed safely. The techniques available today are sophisticated enough for most foreign materials to be removed early after the onset of symptoms. In the late diagnosis of the retained foreign body, in which several days have gone by and symptoms have become protracted because of surrounding pneumonia, bronchitis and edema of the bronchus has led to less insistence on immediate removal but rather utilization of control of surrounding infection and reaction of bronchus. This may make the foreign body accessible to a technique suited to the individual such as the use of the Fogarty catheter and grasping forceps. Preparation with bronchial dilators, antibiotics, and good pulmonary drainage allows for those few children that do require thoracotomy for removal of tracheobronchial foreign bodies. However, most of them will tolerate better a second bronchoscopy preceded by therapy to provide better accessibility to the foreign body at hand. In some cases, it has been important to even try bronchoscopy a third time, thereby saving lung tissue in a young child. This article is important for all people who are concerned with tracheobronchial disease in young children. It emphasizes that proper timing pays off in dealing with these tricky problems. (A. Falla, M.D.)

WHAT IS YOUR OPINION?*

The Destructive Cults

HAROLD L. SCALES, M.D., Teaneck

he destructive cults that use mindcontrol techniques psychologically to enslave young, intelligent, and idealistic adults are approaching the dangerous potential of drug or alcohol addiction.

I should like to enlighten my colleagues on the dangers of the destructive cults. There has been a great deal written in the media since the tragic suicide/murders of Jonestown. However, cults continue to recruit and grow stronger, richer, and bolder. Those parents who have lost their young adults suddenly have acquired a respectable knowledge of cult lifestyle. Too few in the mental health profession or the government have a true understanding of the dangers to families.

A young adult has the inalienable constitutional right to choose his own religion. Often a rebellious adolescent does a 180-degree turn from his parents' traditional religious beliefs. But when a young adult joins a pseudoreligious cult, it is a deliberate process of separation and alienation from family, mplemented by a cult seeking to strengthen its hold on the faithful.

The potential convert—usually with longer hair, perhaps a beard, a knapsack, and a guitar—often is seen on a college campus or at a bus stop, a train depot, or an airport. The vulnerable ones are spotted by their young cult peers, cleancut, bright, and personable young people who invite the potential convert to a free meal, a lecture, and a pleasant social evening.

Then the subtle, deceptive process of indoctrination starts. Usually, no mention is made of any religious affiliation by the friendly, happy group. Instead, the emphasis is on reative community projects or an international reeducation coundation.

The cultist advances to conversion. When the young subjects are isolated and deprived of proper food, friends, and sleep, they sit through long, boring, and hypnotic ectures. Their attention is focused and they slip into an altered state of consciousness. Cult leaders make them feel guilty about past sins and resentful of their parents.

Brainwashing and mind-control are a fact of life in cults, with a total of more than 3.5 million members in the United states. But, 90 percent of deprogrammed cultists, after eality-inducing therapy (known as deprogramming), reject a eturn to mind-control and opt for freedom in a real democratic society.

My son, who was deprogrammed in December, 1976, ontends that he would never have come out on his own. He vas a successful cult leader in the San Francisco Bay area for ive years. He worked 16 to 18 hours a day, practiced

"heavenly deception" to raise money in the streets, broke tax laws, and worked hard to convince other young adults that joining God's crusade was the only way to save themselves and the world from Satan.

When my son was liberated from mind-control, he could examine, in the light of critical reality, the spiritual inconsistencies, the fantasy, and the fraud of life in the cult.

I know from personal experience that deprogramming is a warm, supportive, loving, and emotionally charged drama enacted by a team of professional and former cult members. The inconsistencies in the cult's teachings are pointed out and, in spite of protestations or withdrawal, the team persists, displaying inexhaustible physical energy, tact, and understanding. Above all, the team members communicate love and compassion for the person being deprogrammed.

A 45-day temporary custody period is necessary to carry out deprogramming and rehabilitation, and a court-order guardianship is the only legal means to gain this time.

There has accrued a reasonable quantity of knowledge on the destructive and regressive nature of the cult experience from mental health professionals, exit counselors, ex-cult members, families, clergy, legal experts, and educational and support organizations such as Citizens Freedom Foundation. These experiences have been most useful in counselling families who have lost members to destructive cults.

When one notes the gradual or even sudden drastic changes in appearance, behavior, personality, restriction of conscious awareness, long periods of repetitive prayer, chanting or meditation, one should be alert. When they express absolute loyalty to the person of a guru, messiah, or self-proclaimed prophet, beware. When they show psychological deterioration, speak in cliches, trance out, or dissociate so they cannot concentrate on school and work, or suffer memory loss, get help. You will find descriptions of the cult indoctrinee syndrome by Singer and Clark. They describe physiological changes from the austere lifestyle which decreases beard growth in males and disrupts menstrual cycle in females.

According to Lifton and Clark, 1-2 psychotherapy is effective only after deprogramming or exit counseling has taken place, and the cultist has the opportunity to examine information about the cult that previously was withheld.

Please contact our voluntary dedicated self-help group, Citizen Freedom Foundation, when the destructive cult disease appears. We have programs for education and prevention as well.

^{*}We encourage our readers to write opinions on topics of interest. Send your opinion to Editor, *The Journal*, Two Princess Road, Lawrenceville, NJ 08648.

DOCTORS' NOTEBOOK

Trustees' Minutes March 21, 1982

A regular meeting of the Board of Trustees was held on Sunday, March 21, 1982, at the Executive Offices in Lawrenceville. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Report of the Executive Director...
(1) MSNJ 1982 Memberships... Noted that membership totaled 6,041 in March, 1982, a slight decrease from March, 1981.

Note: In regard to dues-deliquent members, the AMA will terminate benefits if dues are not paid by June 11, 1982.

- (2) MSNJ Financial Statements . . . Received and approved financial statements for February 28, 1982. Noted that the Society is performing under budget and it is anticipated that the Society will be within budget at the close of the fiscal year.
- (3) Internal Revenue Service Audit Report ... Disclosed that there is no change in the tax-exempt status of the Society after the IRS audit on MSNJ's May 31, 1980, return.
- (4) Medical-Surgical Plan of New Jersey ... Approved the concept of approaching the Insurance Commissioner to take action on the theory that premiums for all major medical coverage and individuals holding a basic service contract be required to reflect anticipated service benefits.

Note: Discussions with representatives of Blue Shield have not produced an acceptable response to the intent of the resolution adopted by the 1979 House of Delegates calling for a change in Blue Shield regulations to allow participating physicians to receive fees from major medical contracts in those instances where patients are eligible for service benefits and also have major medical coverage.

- (5) Litigation . . .
- (a) Subordinated Loan Deductibility . . .

Noted that Terence K. Heaney, Esq., Tax Counsel, will begin a conference with IRS regional tax litigators; the case is expected to come up for trial in May.

- (b) MSNJ et al. vs. State Board of Medical Examiners . . . Adopted the following resolution to be introduced as a statement of the Society's position on physical modalities:
- 1. The Board of Trustees of the Medical Society of New Jersey is composed of 21 physicians.
- It is the determination of the Board of Trustees that it requires no special skill or training for an individual to assist in placing another individual in a whirlpool or in traction according to a physician's direction.
- 3. No special skill or training is necessary to place a hot pack or a cold pack on a patient in accordance with a physician's instructions. 4. No special skill or training is necessary to use ultrasound electrogalvanic stimulation or ultraviolet light where a physician first has examined and determined the amount of treatment to be provided and the location of that treatment, and further has determined that the patient is a candidate for the use of that treatment, and when the patient is advised to indicate to the person applying such treatment any discomfort and where the treatment will terminate upon the expression of discomfort until such time as the physician may examine the patient.
- 5. The Medical Society of New Jersey never has had a complaint brought to its attention that any injury ever has been caused by the use of these aids by an unlicensed individual acting under the direction of a physician.
- 6. The use of these aids by persons other than physicians and physical therapists is widespread.
- 7. There is no rational basis for limiting the use of these treatment methods to physicians and physical therapists.
- 8. The Board of Trustees hereby designates William G. Kuhn, Jr., M.D., and Christine E. Haycock, M.D., to represent the view of this Board and of the Medical Society of New Jersey before Judge Richard Cohen with respect to these matters.
- (c) Disciplinary Action Against Four Ocean County Medical Society Members . . . Agreed to support litigation in the event peer review indicates that the cases can be defended.

Note: Four cases involving physicians from Ocean County charged with violation of prescription drug laws by the State Board of Medical Examiners are being reviewed by an expert consultant to see if the cases are defensible.

(d) Interpretation of Custom and Practice Regarding MSP Claim Form . . . Noted the need for further details regarding the interpretation of the signature statement on MSP claim forms.

Note: The signature statement on the MSP form does not include the wording to the effect that services being billed were rendered personally by the physician, or under his supervision, and fraud may be alleged.

(e) Custom and Practice of Employment Physicians . . . Noted that the State Board of Medical Examiners is questioning employment physical reports that are completed under the signature of a senior or employing physician of a practice or practice association, when work actually is being done by another physician.

AMA Activities . . .

- (1) Hospital Staff Physicians ... Announced plans to introduce a proposal to the House of Delegates for the development of an additional section for hospital staff physicians—those who relate more to their hospital administrations than to organized medicine.
- (2) Health Care Planning... Noted that state societies are being urged to develop closer relationships with state lobbyists and to participate in the planning for the utilization of block grants while funds are available; resources of organized medicine should be more available to state legislators and regulators and to physicians in influential positions in government.

Medical Inter-Insurance Exchange of New Jersey ... Received the following items of interest from Dr. Todd:

- (1) Premiums ... Reported that approval was given for rates to be increased by 15 percent. A dividend was declared on premiums paid during the policy year 1977 and physicians insured with the company in 1977 received a 20 percent refund of the premium paid that year.
- (2) Subordinated Loan Certificates ... Received a communication from Julius

J. Baber, M.D., to Board of Governors of the Exchange protesting the decision to discontinue the practice of requiring new members of the Exchange to purchase subordinated loan certificates, noting the decision is unfair to physicians who purchased certificates when the Exchange was founded. Dr. Todd explained that the Exchange cannot continue to collect surplus monies when it is in a profit position without incurring taxes; he noted that returns are anticipated.

(3) Coverage Limits . . . Noted that physicians who were underinsured in 1975 or 1976 will have the opportunity to increase their coverage up to the maximum level, retroactive up to ten years.

(4) Competitive Liability Programs ... Noted that claims-made policies are being written by St. Paul Insurance Company, Health Care Insurance Exchange, and Princeton Insurance Company, and rates probably will be lower. Dr. Todd noted differences between insurance being offered by MIIENJ and by others. The Exchange is the only insurance company in the state interested in the root cause of malpractice, while other companies primarily are concerned with producing a profit which will not be available to the insureds.

University of Medicine and Dentistry of New Jersey . . . Received a report from Stanley S. Bergen, Jr., M.D., President. Certified Medical Assistants . . . Received as informative a communication from Dr. Bergen clarifying the distinction between the American Association of Medical Assistants-State of New Jersey, Inc., and certified medical assistants. Certified medical assistants represent a separate group, external to MSNJ and the AMA.

New Jersey Hospital Association ... Noted that the annual meeting of the New Jersey Hospital Association will be held on April 22, 1982. Received notification that Mr. Jack W. Owen, President of NJHA, is resigning to assume a position as chief lobbyist for the American Hospital Association. Noted a suggestion of a meeting between Executive Committees of MSNJ and NJHA to discuss mutual concerns.

AMA Medical Student Section ... Received and accepted as informative a report from Mr. Jonathan Klein, delegate to the AMA Medical Student Section. Mr. Klein will attempt to keep

MSNJ informed and active on all issues of concern to medical students.

Medical Society of New Jersey Student Association-Rutgers Chapter ... Received a written report from Mr. Paul Feldan and Mr. Peter Gottsfeld concerning the proposed elimination of graduate and professional students from the Guaranteed Student Loan program. Students at UMDNJ are involved in a coordinated campaign to inform legislators from New Jersey of the drastic consequences of the Reagan Administration budget changes. Agreed to support the following recommendation:

That the Board of Trustees inform New Jersey's United States Congressmen and Senators of the adverse consequences of eliminating the Guaranteed Student Loan Program.

Council on Public Health . . . Approved the following recommendation:

That the 1982 Eye Health Screening Program be conducted during the week of September 20, 1982.

Committee on Maternal and Child Care ... Received the following recommendation and postponed consideration of the recommendation until the next meeting:

That all maternal deaths be subject to postmortem study, and that no added cost be incurred by the family of the decedent because of such a requirement.

Note: Dr. Watson spoke against the recommendation, noting that the recommendation would abridge the personal right of the next of kin.

Committee on Medicaid . . .

(1) Medicaid Second Surgical Opinion Program ... Approved the following recommendation:

That the Medical Society of New Jersey cooperate in the Second Surgical Opinion Program as presented by the Division of Medical Assistance and Health Services, with the understanding that this program be reviewed at a definite time after its effective date to evaluate its cost effectiveness and to determine whether or not the program should be continued.

Note: The New Jersey Medicaid Program is instituting a mandatory Second Opinion Program for certain elective surgical procedures including hysterectomy, cholecystectomy, tonsillectomy and/or adenoidectomy, hernia repair, laminectomy, and spinal fusion; the fee agreed upon for a second opinion is \$50.

(2) Off-Hour Physician Reimbursement ... Considered the following recommendation that was referred back to the Committee on Medicaid for further study:

That the Medical Society of New Jersey endorse the concept outlined in the proposal presented by the Division of Medicaid Assistance and Health Services regarding the doubling of a primary care physician's fees if the physician's office hours are increased to the required time with accessibility by telephone in off hours.

(3) Drug Products and Known Related Drug Products that Lack Substantial Evidence of Effectiveness . . . Approved the following recommendation:

That the Medical Society of New Jersey advise the Division of Medical Assistance and Health Services, New Jersey Department of Human Services, that it strongly objects to the cessation of reimbursement under the Medicaid Program for drugs that the Federal Food and Drug Administration has determined to lack substantial evidence of effectiveness, as listed in the New Jersey Health Services Program Newsletter dated November 23, 1981.

Ad Hoc Committee on Health Care Planning . . . Discussed what the policy of MSNJ should be regarding the planning and the impending dissolution of the Health Systems Agency (HSA). Noted that planning and certificate of need are concepts that should be given consideration and should rest upon medical expertise and local parameters.

Old Business . . .

(1) Proposed Rule Re Pronouncement of Death . . . Filed a communication from Martin Kosmin, M.D., a member of the St. Peter's Medical Center's Cancer Committee, approving the concept that "pronouncement of a death at home of a patient who is terminally ill and is a participant in a bona fide hospice program can be made by registered nurse or an emergency medical technician at the request of the attending or covering physician or in their absence."

Note: This communication was not presented to the Board of Trustees of St. Peter's Medical Center, advised Dr. Formica, and, therefore, should not be considered an endorsement by the hospital's medical staff.

Note: Dr. Malta noted that on March 10, 1982, the State Board of Medical Examiners voted to repeal the existing rule and moved to adopt a new amended

proposal that would allow a professional nurse or paramedic registered with the State Board of Medical Examiners to pronounce death in certain instances.

- (2) Specialty Society Representation in House of Delegates . . . Referred to the Reference Committee on Constitution and Bylaws questions about the proposed bylaw amendment regarding eligibility of specialty societies.
- (3) Inpatient Services for Medically Indigent Children . . . Received requested input from specialty societies regarding the interpretation of the Special Child Health Services Program. Received communication from the New Jersey Chapter of the American College of Physicians indicating that they agree with the concept of limiting the care to Level III-Regional Perinatal Care Centers, but they believe some procedures can be done at the community level.
- (4) Society Press Releases . . . Noted comments regarding newspaper releases. Noted objection to March release (Health Services Clinics) by Jon Marsicano, M.D.; noted adverse reaction from those affiliated with HMOs and IPAs. Received no objection to the April release (Democratic vs. Bureaucratic Medicine) and did not approve for publication May release (Could Your Doctor Pick You Out of a Crowd?).

Note: Mr. Maressa explained that the staff and Council are caught in the middle of an intramural argument by policy established through the House of Delegates; he stated that he was not in favor of public relations being used for these purposes.

(5) Reevaluation of the DRG System of Reimbursement ... Unanimously approved the following resolution:

Whereas, the DRG System of hospital reimbursement initially was proposed as a limited experimental study in a few volunteer New Jersey hospitals; and

Whereas, before such an evaluation could be made, the State Department of Health, through achieving legislation, mandated the system for all New Jersey hospitals; and

Whereas, this experiment, designed to cut health care costs, has proven to increase health care costs as verifiable by the increased costs to HMOs and third party payors, and

Whereas, the public has shown frustration with DRG hospital bills that are outrageous and add substantial out-of-pocket expenses for services rendered; and

Whereas, the DRG Program has added an unnecessary bureaucratic confusion to the normal function of physicians and hospital personnel in the care of their patients; and

Whereas, hospitals and peer review mechanisms have had to add personnel and had been forced to provide extra time and space for this program; now, therefore, be it

Resolved, that the Medical Society of New Jersey petition both the Governor and the Commissioner of Health to reevaluate the entire DRG system of reimbursement; and be it further

Resolved, that the DRG Program shall not be facilitated further until this study has been completed; and be it further

Resolved, that should this study find that DRG is not cost effective, immediate steps be taken for discontinuing the entire program in the state of New Jersey.

UMD Notes

By Stanley S. Bergen, Jr., M.D. President

All too often we are reminded about the incidence of cancer in New Jersey. Study after study has concluded that deaths from cancer in our state are among the highest in the nation. However, there is some good news to report on the cancer front in this state.

Two months ago—with the participation of Governor Thomas H. Kean and other top New Jersey officials—the University of Medicine and Dentistry of New Jersey broke ground for a major, multidisciplinary Cancer Research and Treatment Center on our campus in Newark.

When a major stage of the Center is completed late next year, cancer patients throughout New Jersey will have access to the most advanced treatment programs available. No longer will they automatically seek treatment at institutions in New York and Philadelphia. Governor Kean, in his remarks at the groundbreaking, properly characterized the facility as "an advanced diagnostic and treatment center, that when completed, is likely to be unsurpassed by any such facility in the United States."

The Cancer Research and Treatment Center will be the backbone of a coordinated statewide attack on cancer through treatment, research, and education. Patients will benefit from the most advanced methods of care and the most sophisticated equipment.

The Cancer Research and Treatment Center is being built in two stages. The groundbreaking in April was for the \$3 million first phase, literally and figuratively, the foundation of the research and treatment effort.

Phase one entails the construction of a 13,000-square foot, below-ground level that will house New Jersey's most powerful linear accelerator for radiation therapy. This machine will treat a wide range of cancers with startling precision. It has four radiation beams of varying intensity and penetration that help to minimize damage to healthy organs and tissue during the radiation process.

With this accelerator, the most advanced on the market today, our cancer specialists will perform "intraoperative radiation therapy," a treatment available at only a handful of sites around the nation. This is the technique of surgically exposing tumors for direct radiation, bypassing skin, muscle, and other anatomy that is at risk when radiating cancer externally. The treatment particularly is advantageous for treating deeprooted tumors—such as a cancer of the pancreas—which are difficult to radiate externally.

The intraoperative procedure will be made possible by locating an operating suite immediately adjacent to the accelerator unit. The cancer patient, in the midst of surgery, will be transported the short distance to the accelerator room for pinpoint radiation therapy at the tumor sites.

The transport distance is the key. The short distance sharply reduces the hazards, primarily infection, inherent in transporting a patient during surgery. The inability to locate linear accelerators close enough to surgical suites has hampered intraoperative radiation procedures at other cancer centers in the nation.

Besides the accelerator and the surgical section, a suite of outpatient examining rooms and a computerized center for treatment planning round out phase one, which is being financed through the funds realized from the New Jersey Medical Education Facilities Bond Act of 1977.

The Cancer Research and Treatment Center will be fully operational upon completion of the first phase through its direct connection to UMD-College Hospital and the UMD-New Jersey Medical School; the Center will receive the necessary support services from each institution, drawing on a multitude of faculty specialists and technological resources.

Eventually, the components of phase one will be supplemented by phase two. Fund raising already is underway for the

second phase, which will include a maximum of three additional floors housing research laboratories, clinical offices, conference rooms, and an ambulatory care unit. The ambulatory unit will feature a day care section for chemotherapy treatment, an operating room for minor surgical procedures, and a multidisciplinary followup clinic.

Governor Kean referred to the center as the "newest jewel in the University of Medicine and Dentistry's collection of education, research, and treatment facilities." It is indeed very gratifying for us to be able to house such a jewel, a real success story for the state of New Jersey and its residents.

I strongly share the Governor's sentiments and prediction that "our Research and Treatment Center will serve as a national model in cancer therapy. . . . (It) will lead the way to breakthroughs in the diagnosis and treatment of our most dreaded disease; and (I) hope that, eventually, the work done here will serve our ultimate goal—to save lives."

The Physician's Responsibilities Under the New Jersey Controlled Dangerous Substances Act*

A physician who desires to prescribe, administer, or dispense controlled dangerous substances in New Jersey must conform to established regulations promulgated under the Controlled Dangerous Substances Act of 1971, effective May 1, 1971. This Act is cited as New Jersey Statutes Annotated, N.J.S.A. 24:21-1 et seq. In addition to the regulatory restrictions, a practitioner must add further professional restraints.

Before discussing the legal mandates of the Act, it becomes necessary to define a few select terms which will appear from time to time in these regulations. Controlled Dangerous Substances (CDS) is the term used to identify what formerly were called narcotics, amphetamines, and/or barbiturates. Also, it includes those substances which have been found to be highly or potentially significant in causing a drug dependency in an individual. Registrant is any per-

son, corporation, or entity subject to the provision of the Act. A registrant may be a manufacturer, distributor, analytical laboratory, researcher, pharmacy, or individual practitioner. Schedule refers to the placement of a drug or substance into a numerical classification based upon its dependency liability. Schedules range from Schedule I through Schedule V, going from greatest liability for dependency to the least.

REGISTRATION

Any person, corporation, or entity that plans to handle controlled dangerous substances either by manufacturing, distributing, prescribing, or conducting research must possess a registration certificate from the New Jersey State Department of Health's Drug Control Program and the Drug Enforcement Administration, United States Department of Justice. The registration application may be obtained from the state agency by writing to: Drug Control Program, New Jersey State Department of Health, C.N. 364, Trenton, NJ 08625 and the Drug Enforcement Administration. United States Department of Justice, 555 W. 57th Street, New York, NY 10019. The certificates of registration are renewable annually. The state's renewal period is July 1, through June 30, each year. Under the federal certificate, the period is on a staggered basis dependent upon the first letter of the registrant's last name. The fees for such registration are \$10 for the state and \$5 for the federal, payable to each agency.

A practitioner in completing the applications shall use his/her own name as it appears upon the medical license, i.e. Doe, John A., M.D., or John A. Doe. M.D., not with organizational titles, i.e. P.A., FACP, FAAP, FAAOG, and so on. A practitioner is not required to obtain a registration certificate under either state or federal law if his/her sole practice is within a hospital setting, and the practitioner does not see any patient (self, family, friends, or patient) outside of that hospital practice. Such arrangement authorizes the practitioner to use the Federal Drugs Enforcement Administration (DEA) registration of the hospital followed by an internally assigned

No registration is required for a practitioner whose sole practice is on a federal installation, i.e. Veteran's Hospital, Fort Dix, McGuire Air Force Base, or public health hospital. The practitioner will use his/her social security number for the registration license number.

Separate registrations are required for

each location upon which a practitioner stores his/her own stock of controlled dangerous substances. Thus, if a practitioner maintains two offices where his/her own drugs are stored, two separate state CDS numbers and two separate DEA numbers are required. No additional registrations are required for any location from which the practitioner only prescribes, i.e. writes prescriptions.

Registrations are required for a practitioner who directs or runs a nursing home or extended care or intermediate care facility if stock containers of controlled dangerous substances are used. The application must be completed in the practitioner's name for the nursing facility location. Present health facilities requirements do not permit stock containers of controlled dangerous substances, even in emergency kits, at these facilities unless the practitioner is registered for it. Normally controlled dangerous substances are ordered on an outside pharmacy in the name of a specific patient, and is not common stock for other patients.

SCHEDULES OF DRUGS

As indicated earlier, there are five schedules of controlled dangerous substances. Schedule I substances are those that have no legitimate medical use and includes such substances as heroin, marijuana, mescaline, pevote, and LSD. Schedules II and V have medical uses and starting at Schedule II for those with the highest potential for abuse and going through Schedule V, the substances with the lesser potential for abuse. Practitioners shall administer, dispense, or prescribe only the schedules for which the registration is applied. Under the Federal Act, the schedules are given as Schedule II, Narcotic; Schedule II Nonnarcotic: Schedule III Narcotic: Schedule III Nonnarcotic; Schedule IV; and Schedule V. Briefly listed in the Table are common substances in the various Schedules.

SECURITY, RECORDS, AND INVENTORY

Every practitioner must exercise caution in the handling of controlled dangerous substances. The drugs should be stored in locked cabinets, and/or substantially constructed closets. The practitioner must see that diversion of controlled dangerous substances does not occur. Small amounts of stock are recommended over huge amounts. Access to them should be limited to the smallest

^{*}This article was prepared by Lucius A. Bowser, R.P., M.P.H., Chief-Drug Control Program, New Jersey State Department of Health.

TABLE

Schedule Listings*

Schedule II: Demerol, Percocet, Percodan, Dexamyl, Dexedrine, Tuinal, Seconal, Nembutal, Quaalude, Codeine, Bi-Phetamine, Cocaine, Dilaudid.

Schedule III: Hycomine, Hycomine Compound, Hycodan, Nembugesic, Glutethimide, Phendimetrazine, Methylprylon.

Schedule IV: Chloral Hydrate, Chlordiazepoxide, Diazepam, Diethylproprion, Fenfluramine, Meprobamate, Phenobarbital, Phentermine.

Schedule V: Lomotil, Donnagel-PG,
Ativan and Rx and OTC
cough syrups with small
amounts of narcotics, i.e.
Brown Mixture, Stokes Expectorant, Robitussin-AC,
Novahistine DH, Phenergan
Expectorant with Codeline,
and Phenergan VC with Co-

*Italicized are nonnarcotics.

number of persons. If the neighborhood area is such to be considered a high crime area, controlled dangerous substances should be held under stricter security within a safe rated as a T5 type. Additional security may be imposed by having internal, external, or distant removed alarm systems. A responding agency, i.e. police or security guard system, may be necessary in some locales. Security should be exercised as diligently over prescription blanks that can be used to secure controlled dangerous substances for unlawful purposes.

Every practitioner registered under the Act shall be responsible for keeping records of all controlled dangerous substances coming into his/her possession, including professional samples as well as regular stocks. The record shall include the name and DEA number of the person or firm supplying the CDS drugs to the drug received. This record must be kept for two years. If the person or firm does not provide a record to the practitioner, the practitioner is obligated to make his own record listing all the required information. The practitioner shall maintain a record of all CDS drugs that he/she dispenses from his/her practice. The records shall include the name, strength, and quantity of the drug, dispensed along with the name and address of the person to whom the CDS drugs were dispensed.

Every practitioner must take an inventory of all controlled dangerous substances in his/her possession, including samples, on May 1, of each odd num-

bered year, if he/she was in practice prior to May 1, 1971. Any practitioner commencing business or practice after May 1, 1971, shall take his/her inventory of controlled dangerous substances every two years from the date he/she first began practice. Such inventories shall include the name, strength, and quantity of all controlled dangerous substances in his/her possession. The inventory must be dated as of the date it was taken and indicate whether it was taken at the start or closing of that date. The inventory may be taken over a four-day period of the date of inventory, but must be dated when each part was inventoried. The inventory is maintained for two years with all the other records of the practitioner.

The records of purchases, disposition, and inventory shall be made available to all inspectors or investigators of the licensing agency or other law enforcement agencies. Total records must be made available within 48 hours of a request to produce records. The manner in which records are kept by a registrant is not mandated, but shall be in a manner so that an accountability audit of controlled dangerous substances of a practitioner may be performed. The regulations do not mandate a continuing inventory, although it would be advantageous. Records maintained as part of the patient's comprehensive medical records shall be open for inspection upon request and such inspection shall be performed in as confidential a manner as possible. This action does not violate the physician-patient relationship.

AUDITS AND ACCOUNTABILITIES

Every practitioner registered under the Act to handle controlled dangerous substances shall be subject to an audit or accountability inspection to determine the security, recordkeeping, and dispensing of CDS drugs. Such audit and accountability is for the purpose of determining compliance to the law or diversion of controlled dangerous substances from licit to illicit markets. Any record of purchase and disposition of controlled dangerous substances shall be used in performing such audit or accountability, including patient profile records. All records required to be maintained under the act, as well as the biennial inventory, shall be available for a minimum of two years.

ORDERING CDS DRUGS FOR OFFICE USE

All controlled dangerous substances

for office use must be secured from another registrant, i.e. practitioner, distributor, manufacturer, or pharmacy. No prescription for a controlled dangerous substance may be used to obtain drugs for office use for multiple patients. Schedule II drugs only can be ordered from another registrant on the official triplicate order form (DEA-224) made out in the name of the person or firm from which the CDS Schedule II drug is to be purchased. Other than Schedule II, drugs shall be acquired on an invoice from the supplier. The record of the purchase shall include the name and DEA number of the supplier, date of shipment, and name, strength, and quantity of the controlled dangerous substance purchased. Such records shall be available for two years. Should federal triplicate forms need to be acquired, they may be obtained from the Drug Enforcement Administration, P.O. Box 28038 Central Station, Washington, DC 20005. If triplicate order forms are needed upon registration, question 4 of the application or renewal application form should be checked off.

The triplicate order forms, preprinted with the registrant's name, address, DEA number, and registered schedules, should be completed by the registrant listing the quantity, name and strength of the drug being ordered, date or order, and name and address of the supplier from which the drug is to be ordered. The original and second copy of the forms should be mailed or given to the supplier. The third copy shall remain in the records of the purchaser. When the drug is received from the supplier, the registrant shall so indicate on his retained copy the date received and amount received. If the supplier is unable to supply the full amount of the order, they will have 60 days to complete the amount. If at the end of the 60 days, the order still is not completed, the triplicate order balance is void. The forms are for Schedule II drugs.

PRESCRIPTIONS

Prescriptions for controlled substances shall bear the following information: name, address, and DEA number of the prescriber; name, address, and age of the patient; date upon which it was written; drug name, quantity, and strength; instructions for its use, whether it is refillable and for how many times; and the signature of the prescriber. Under rules and regulations promulgated by the New Jersey State Board of Medical Examiners, only one controlled dan-

gerous substance may be written on a single prescription blank.

Prescription blanks are preprinted, mimeographed, multilithed, or photooffset. They may be prepared by the practitioner or someone under his/her supervision. Schedule II prescriptions must be signed by the practitioner in his/her own handwriting. All prescriptions for controlled dangerous substances must bear the DEA number of the practitioner. It is recommended that the practitioner write the DEA number on the blank at the time of writing, rather than having it imprinted on the blank. The practitioner should be able to attest to this DEA number should a pharmacist or supplier request it.

The DEA number is a two-alphabetic, seven-numeric number. The first letter should always be an "A," the second letter should always be the first letter of the practitioner's last name. To verify the correctness of the number, not necessarily the current status of it, there is a formula which says: "temporarily disregard the last digit of the seven-digit number. Using the first six digits, add the sum of the odd (1-3-5) digits to twice the sum of the even (2-4-6) digits to get a two-digit answer. The last digit of the two-digit answer from the addition is now the seventh digit of the DEA number. Example: William Brown, M.D. should have AB1234563, (1+3+5 added to 2 times 2+4+6=33. The last digit is 3.)"

Telephone prescriptions for Schedule II drugs are not permitted. Written prescriptions are mandated. They should be made available to the patient or the pharmacist before the medication is dispensed. In an extreme emergency, where (1) there is no other drug in a lesser schedule (Schedule III to V) that will give the desired action, (2) the practitioner is not in a position to provide the patient or pharmacist with a written prescription, and (3) the quantity to be offered in such an emergency is limited to that sufficient for 72 hours, a practitioner may telephone the Schedule II drug to the pharmacist. In an emergency situation as described, it is the responsibility of the practitioner to get the written prescription for that 72-hour quantity to the pharmacist within 72 hours of the telephone request. Failure on the part of the practitioner to do this will subject him/her to action as the Act requires. Additionally, across the face of the written prescription covering an emergency telephone order the practitioner shall write the phrase "written for emergency use only."

Schedule II prescriptions are limited to a 3-day supply or a 120-dosage quantity, whichever is the lesser amount. Schedule II amphetamine or other sympathomimetic drugs may be prescribed only for narcolepsy, hyperkinesis, or severe depression. They may not be prescribed for obesity. Schedule II prescriptions are not refillable. They are like a one-time check. They may be represcribed but not refilled.

Schedule III and Schedule IV drug prescriptions are refillable only upon the authorization of the prescriber and then only five times or for a six-month period, whichever comes first. They can be represcribed for another such period by a new written or telephone prescription to a pharmacist. There is no limit as to the quantity of the CDS drug in Schedule III or IV prescribed. Such quantity is based upon a rational professional judgement of the circumstances in the specific case.

Schedule V substances, likewise, are refillable only upon authorization but can be done as often as needed up to a maximum of one year from the date of issue. Again, no limits have been set as to the quantity of the CDS drugs prescribed.

THEFTS AND DISPOSAL OF CDS DRUGS

All thefts or losses of controlled dangerous substances coming to the attention of the practitioner must be reported to the Drug Control Program, New Jersey State Department of Health, C.N. 364, Trenton, NJ 08625, as soon as loss becomes evident. Every theft or loss shall be reported on a DEA-106 form supplied by the Drug Program. This form includes such information as name, address, and DEA number of registrant experiencing a loss; the date for such loss; circumstances surrounding such loss; and the quantity of CDS drug lost. The form is made in triplicate with two copies being returned to the Drug Control Program and one copy being retained by the registrant with all other records. Losses may be thefts by employees or other persons; losses in shipment from suppliers; armed robberies; or premises break and entries.

Any outdated, recalled, or unwanted CDS drugs that cannot be returned to a supplier shall be inventoried on Federal DEA Form 41 available from the Drug Control Program, New Jersey State Department of Health. The forms shall be completed in triplicate. When the forms have been properly completed, the Drug Control Program (609-984-1306) shall

be contacted and instructions will be given on the most suitable method for destroying the CDS drugs. Drugs may not be discarded except by this approved method. When instructions have been received to destroy the CDS drugs, one person shall destroy them, witnessed by another, and the forms signed by both parties. Two copies of the double-signed forms are to be returned to the Drug Control Program and one copy retained in the records of the registrant. Such records of destruction and thefts shall be retained for a period of at least two years.

CLOSING OR TRANSFERRING A PRACTICE

Before a practitioner terminates a practice in which controlled dangerous substances were used, written notice must be given to the Drug Control Program, New Jersey State Department of Health, C.N. 364, Trenton, NJ 08625, indicating the date upon which the practice is to be terminated and the disposition planned of any controlled dangerous substances on hand. Upon the actual close of medical practice the State Certificate of Registration must be returned to the Drug Control Program for cancellation. If the registrant is no longer going to practice anywhere then the Federal Certificate of Registration and any unused order forms also shall be returned to the Drug Control Program.

Should the practitioner be closing a practice and moving to another state. he/she may transfer his/her DEA number to the other state provided he/she forwards a copy of the DEA certificate, copy of proof of licensure in the other state, and a letter of intent to change to the other state to the Drug Enforcement Administration, P.O. Box 28038 Central Station, Washington, DC 20005. A new certificate of registration will be issued for the new location in the other state and the DEA number will be maintained. If a transfer is made out of state following the above procedure, any unused triplicate order forms for the New Jersey location shall be returned to the Drug Control Program, New Jersey State Department of Health.

When closing a practice, a practitioner has the right to sell or transfer any and all CDS stock of drugs to another registrant following the established procedures outlined in "Ordering" of drugs above. A reminder again that Schedule II CDS drugs may only be transferred by triplicate order forms of the purchaser, made out to the supplier, in this instance the practitioner closing his/her practice.

Should a practitioner close one office in this state and move to another office in this state, all registrations are transferred to the new location upon notification by a "Change of Information Form" for both the Drug Control Program, New Jersey State Department of Health and the Drug Enforcement Administration. Both forms are available from the Drug Control Program. There is no need to apply for new registrations for a new location because of a change in practice within the state.

PROFESSIONALISM

Professional care and discretion must be exhibited by any practitioner who handles, dispenses, prescribes, or administers controlled dangerous substances. Drugs on the controlled dangerous substances list are there because they have exhibited patterns of abuse either by their dependency capabilities or by misuse by persons. Proper medical determinations must be made before such drugs are prescribed or administered. Proper medical histories must be established for each patient. Care should be exercised in the storage of the CDS drugs as well as the prescribing of them. If a sound medical judgment has been made that a specific controlled dangerous substance is warranted, then there should be no fault found with such use.

It is only when patients dictate what controlled dangerous substance is good for them, coerce the practitioner in going beyond his professional guidelines, or manage to steal a few or many prescription blanks in order to obtain licit controlled dangerous substances for some illict use that obliges agencies to stop in to take a closer look at the prescribing or dispensing habits of the practitioner.

Practitioners of the healing arts have a professional, medical, social, and moral obligation to handle controlled dangerous substances in a manner to prevent the diversion of such substances. It is the practitioner's responsibility to know the laws and act within their boundaries.

What the Physician Should Know About the New Jersey PAA Law*

The Pharmaceutical Assistance to the Aged law provides a prescription drug

benefit to New Jersey senior citizens 65 years of age and older with incomes of \$12,000 per person or no more than \$15,000 per couple. Each participant must qualify yearly by filing a statement with the PAA authorities regarding annual income. This law is limited to New Jersey residents and New Jersey pharmacies.

PAA recipients must pay \$2.00 for each prescription, with the state paying for the balance based on claims submitted by participating pharmacies. The senior citizen is entitled to no more than a 60-day supply or 100 doses of a drug, whichever is greater in most instances. Physicians may encounter patient pressure to order a maximum quantity of a drug because it only costs the patient \$2.00 no matter what quantity is dispensed. Due to this very liberal maximum limit on drugs the New Jersey Pharmaceutical Association, based on studies in comparable populations and reported by the Federal Department of Human Services, revealed that there is a probability of significant waste, perhaps amounting to 20 percent or \$7 million annually.

Under the current generic substitution law, as interpreted, PAA recipients are eligible for trade name products or generics as with any other nongovernmental patient, depending on the physician's choice. If the physician does not prevent substitution, the pharmacist is compelled to dispense a generic drug from the New Jersey Formulary if the chemical entity appears in that Formulary. If the physician allows substitution, the PAA recipient still may obtain the brand product but is required to pay the difference between the brand and the generic product in this instance, as the program will pay only for the generic.

We believe it is imperative for physicians to demonstrate caution for PAA patients, just as for all other patients, in protecting against overutilization or overprescribing. When cost constraints are eliminated, as they are in the PAA program, physicians should be cautious to prevent overprescribing or the overprescribing of expensive drugs when less expensive drugs equally may be suitable, and also to avoid excessive quantities that become a hazard in patient trading and in medicine cabinets.

Pharmacists are experiencing a terrific cash-flow problem from this and other group prepaid prescription programs. The problem stems from low fees and unresponsive-to-inflation fees for service paid by PAA and other programs. Phar-

macists receive an average \$2.71 fee for filling a PAA prescription which locks them into an ever-decreasing markup situation as the cost of drugs constantly increases. The pharmacist also has to wait for payment for a month or more and subsequently, because of increasing drug costs, has an ever-increasing accounts receivable situation to deal with.

From the pharmacist's standpoint, the New Jersey Pharmaceutical Association initiated the concept of this law at state level when it appeared that the federal government would not implement drugs under Medicare. While we generally agree that this law has been of great benefit to our senior citizens, we are concerned about the excessive use of drugs that may occur when cost constraints are removed. Pharmacists want to work cooperatively with patients and with the physician to insure that adequate drug therapy may be maintained, and to prevent overutilization of drugs by the patient or overburdening of the system with unnecessary and counterproductive costs.

For Children With Diabetes

Did you know that there is a residential summer camp in New Jersey for children with diabetes? It is Camp Nejeda in Sussex County, and this year Camp Nejeda is completing 25 consecutive years of successful operation.

Camp Nejeda is located on a 70-acre tract in the foothills of the Kittatinny Mountains in Stillwater. There is a 13-acre lake, a swimming pool, a baseball diamond, a basketball court, and a large handsome lodge with dining and recreation facilities. A recently constructed pole barn is available to permit full recreation activities during inclement weather. An up-to-date, recently expanded Health Center is on the grounds with 24-hour physician/nurse coverage. Offsite canoe runs and horseback riding also are a part of the program.

The Camp is owned and operated by Camp Nejeda Foundation, Inc., in cooperation with the American Diabetes Association, New Jersey Affiliate. It is approved by the New Jersey State Department of Health and meets the high standards of the American Camping Association.

Camp Nejeda is open to children with diabetes from age 5 through 15. Last

^{*}From the New Jersey Pharmaceutical Association, Trenton.

year—1981—there were 216 campers. There are four, two-week sessons during July and August.

Campers are taught how to administer their own insulin and, by reason of spending two weeks with other children with diabetes, gain valuable experience in learning to cope with their condition away from home—many for the first time.

Campers are interviewed by medical staff upon arriving at camp and upon leaving. There is pre- and posttesting. During their stay at Nejeda, the campers attend talks given regularly by the teaching nurse and physician on the subject of proper diabetic control. There are educational talks from the teaching nutritionist.

The fee charged for these services and programs does not meet the costs; all campers, therefore, are subsidized, some partly and some wholly. No applicant is refused because of inability to pay. The operating deficit is made up by contributions from many civic-minded people, groups, organizations, and foundations.

For further information, please call (201) 383-2611 or write Camp Nejeda, P.O. Box 156, Stillwater, NJ 07875.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Offices of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY—David C. Lung, M.D., 273 Sunrise Blvd., Williamsville, NY 14221. China Medical (Taiwan) 1974. Board eligible. Group or partnership. Available July 1982.

S.K. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Partnership or group. Available.

CARDIOLOGY—Gerald I. Myers, M.D., 6324 Alderson St., Pittsburgh, PA 15217. Temple 1976. Also, general internal medicine. Board certified (IM). Group or partnership. Available.

Walter P. Paladino, M.D., 163 Carr St., Providence, RI 02905. Einstein 1977. Also, general internal medicine. Board certified (IM). Group or partnership. Available July 1982.

Mohammad Riaz, M.D., 853 Avenue Z,

Brooklyn, NY 11235. Khyber (Pakistan) 1971. Board eligible. Group or partnership. Available July 1982.

Narendra T. Agrawal, M.D., 502-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Also, general internal medicine. Board eligible. Associate, partner, hospital-based clinic. Available.

Madhusudhan T. Gupta, M.D., 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Also general internal medicine. Board certified (IM). Solo, group, partnership. July 1982.

FAMILY MEDICINE—Leslie Lynn Pawson, M.D., 19236 Bryant St., Apt. 13, Northridge, CA 91324. McMaster (Canada) 1979. Board eligible. Group. Available August 1982.

Asha Garg, M.D., 133 Kearny Ave., Apt. 17, Kearny, NJ 07032. NHLM Medical College (India) 1970. Residency. Available.

Deborah A. Beiter, M.D., 44 Waterford Way, Fairport, NY 14450. SUNY-Upstate 1976. Board certified. Group or partnership. Available August 1982.

Railton Leonard Green, M.D., 64 Martin Drive, Harrington Park, NJ 07640. University of Cape Town (South Africa) 1959. Partnership or group. Available.

GASTROENTEROLOGY—Mathew K. Kandathil, M.D., 94 Village Lane, Branford, CT 06405. Grant (India) 1974. Also, general internal medicine. Board certified (IM). Group, partnership, associate. Available July 1982.

Muhammad A. Nyazee, M.D., 1650 Selwyn Avenue, Bronx, NY 10457. Also, general internal medicine. Board certified (1M). Solo/group practice, partnership, academic (gastroenterology). Available July 1982.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available July 1982.

GENERAL PRACTICE—Samuel Saland, M.D., 125-F Galaxy, 7000 Boulevard East, Guttenberg, NJ 07093. Berne (Switzerland) 1934. Board certified (FP). Subspecialty, alcoholism (detoxification, treatment, rehabilitation). Full or part-time, multispecialty group, associate, preferably in vicinity of Fort Lee or Guttenberg area. Available.

INTERNAL MEDICINE—Jitendra C. Shah, M.D., 288 Bay 38th St., 6D, Brooklyn, NY 11214. Seth G.S. Medical (India) 1974. Subspecialty, pulmonary medicine. Board certified (IM). Hospital-based or group. Available July 1982.

N. Iyengar, M.D., 142 Hawkins Ave., Parsippany, NJ 07054. Mysore (India) 1971. Subspecialty, cardiology. Group, partnership, single, multispecialty group. Available.

Linda S. Alexander, M.D., 3901 Conshohocken Ave., Apt. #277, Philadelphia, PA 19131. Hahnemann 1978. Group, partnership, HMO. Available July 1982.

Krishan M. Mathur, M.D., 64-B Brighton Court, Brooklyn, NY 11235. SMS Medical, Jaipur (India) 1976. Board eligible. Group or partnership. Available July 1982. Arthur C. Tutela, M.D., 132 Midland Place, Newark, NJ 07106. Bologna (Italy) 1974. Also, general medicine. Group, partnership, clinic, institution. Available.

Muhammad A. Nyazee, M.D., 1650 Selwyn Ave., Bronx, NY 10457. Nishtar (Pakistan) 1974. Subspecialty, gastroenterology. Board certified. Solo/group practice, partnership, academic (gastroenterology). Available July 1982.

Thomas A. Neef, M.D., P.O. Box 3249, York, PA 17402. Georgetown 1975. Board eligible. Solo, associate, group. Available.

Harry N. Brandeis, M.D., Ten Overlook Rd., Apt. 51, Summit, NJ 07901. Bologna (Italy) 1979. Board eligible. Group, partnership, solo. Available July 1982.

Narendra T. Agrawal, M.D., 503-5306 N. Cumberland, Chicago, II. 60656. Baroda (India) 1973. Subspecialty, cardiology. Board eligible. Associate, partner, hospitalbased clinic. Available.

Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Subspecialty, pulmonary medicine. Group or solo (hospital based). Available July 1982.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available July 1982.

Melvin Polkow, M.D., 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Subspecialty, pulmonary medicine. Board certified (IM). Group, partnership, hospital based. Available July 1982.

Steven Fischkoff, M.D., 6792 Pyramid Way, Columbia, MD 21044. Pennsylvania 1976. Subspecialty, oncology. Board certified (both). Group or partnership. Available July 1982.

Frank Gentile, M.D., 2116 Trail 2, Apt. 9-K, Burlington, NC 27215. Bologna (Italy) 1973. Subspecialty, hematology and oncology. Solo or partnership. Available.

S. Srinivas, M.D., 7859 Riverdale Rd., Apt. 103, New Carrollton, MD 20784. Gandhi (India) 1973. Subspecialty, gastroenterology. Board certified. Solo, partnership, single-specialty group. Available July 1982.

Madhusudhan T. Gupta, M.D. 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Subspecialty, cardiology. Board certified. Solo, group, partnership. Available July 1982.

Nanjappa Ravi, M.D., Prel Gardens, Apt. ID, Orangeburg, NY 10962. India 1970. Board eligible. Solo, group, partnership, emergency room. Available July 1982.

Vinod Kanbilal Shah, 507 6th St., Brooklyn, NY 11215. MP Shah Medical 1975. Board eligible. Group, solo, partnership. Available July 1982.

Jae O. Park, M.D., 9542 W. Pickwick, Taylor, MI 48180. Chonnam (Korea) 1969. Board eligible. Hospital based or group. Available July 1982.

OBSTETRICS/GYNECOLOGY—Yvonne S. Thornton, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/fetal medicine. Board certified (both). Partnership or

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group (single specialty), Morris or Middlesex counties preferred. Available August

Ibrahim Beruti, M.D., 1236 Napoleon St., Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified, Solo, Available,

Gary S. Rosenberg, M.D., 245-20 Grand Central Parkway, Bellerose, NY 11426. SUNY-Downstate 1977. Board eligible. Group or partnership. Available.

Gary C. DeGrande, M.D., 201 Seeley Road, Apt. H-3, Syracuse, NY 13224. Guadalajara (Mexico) 1977. Board eligible. Private group practice. Available July

Judith A. Scheraga Stavis, M.D., 16 Everett Rd., Demarest, NJ 07627. Cornell 1972. Board certified. Group partnership, hospital, ambulatory clinic. Available.

OPHTHALMOLOGY-Shearwood J. Mc-Clelland, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia Physicians and Surgeons 1974. Board certified. Partnership or group. Available January

Michael Hostovsky, M.D., 4100 West 36th St., Minneapolis, MN 55416. Hadassah (Israel) 1972. Also, neuro-ophthalmology. Board eligible. Single or multispecialty group. Available September 1982.

OTOLARYNGOLOGY-Arnold I. Charow, M.D., 6 Country Club Drive, Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.) Avail-

Richard G. Shiffman, M.D., 8101 Camino Real, Suite C-318, Miami FL 33143. Tufts University. Board eligible. Group or partnership. Available July 1982.

PATHOLOGY-Donald J. MacPherson, M.D., 3 Highview Dr., Livingston, NJ 07039. Vermont 1948. Board certified (AP, CP, RP). Available.

S. A. Hadi, M.D., 50 S. Chillicothe St., South Charleston, OH 45368. Gandhi Medical (India) 1964. Board certified (Anatomic). Group. Available.

PEDIATRICS-B. R. Prasad Achanti, M.D., #310, 11135-83 Ave., Edmonton, Alberta, Canada 6G-2C6. Guntur Medical (India) 1975. Board eligible. Available July

Jogesh Dugal, M.D., 135-17 Coolidge Ave., Kew Gardens, NY 11435. Lady Hardinge (India) 1970. Special interest, child development. Board eligible. Group or partnership. Available August 1982.

PULMONARY DISEASES—Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Also, general internal medicine. Group or solo, hospital based. Available July 1982.

Melvin Polkow, M.D. 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Also general internal medicine. Board certified (IM). Group, partnership, hospital based. Available July 1982.

RADIOLOGY-Stephen Phillip Laufgraben, M.D., 19 Poplar Ave., Wheeling, WV

26003. University of Arkansas (1973) Board certified. Single specialty group, hospital based, private. Available.

SURGERY, GENERAL-Robert C. Kahn, M.D., 2516 North 4th St., Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available July 1982. Lawrence W. Silvers, M.D., 1350 West Bethune Ave., Apt. 2002, Detroit, M1 48202. Albany 1976. Also, vascular surgery. Board eligible. Group or partnership, with medical school affiliation. Available July 1982.

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Milan (Italy) 1972. Also colon and rectal surgery. Group or partnership. Available July 1982.

Alan Berger, M.D., 10 Landing Lane, Apt. 1P, New Brunswick, NJ 08901. Temple 1976. Also, vascular surgery. Board eligible. Group or partnership. Available July 1982.

SURGERY, PLASTIC-Parvaiz A. Malik, M.D., 5088 Clayridge Dr., Apt. 214, St. Louis, MO 63129. Dow (Pakistan) 1972. Solo, group, partnership. Available July

SURGERY, VASCULAR-Ahmed I. Khan, M.D., 5627 North 16th St., Apt. H-8, Phoenix, AZ 85016. Dacca (Bangladesh) 1972. Also, general surgery. Any type practice. Available.

Lawrence W. Silvers, M.D., 1350 West Bethune Ave., Apt. 2002, Detroit, MI 48202. Albany 1976. Also, general surgery. Board eligible. Group or partnership, with medical school affiliation. Available July 1982.

Alan Berger, M.D., 10 Landing Lane, Apt. IP, New Brunswick, NJ 08901. Temple 1976. Board eligible. Group or partnership. Available July 1982.

UROLOGY-Alexander M. Pagnani, M.D., 3510 Avenue H, Apt. 2-B, Brooklyn, NY 11210. Guadalajara (Mexico) 1976. Board eligible. Any type practice. Available July

Ramesh K. Chopra, M.D., 1920 S. First St., Minneapolis, MI 55454. Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available August 1982

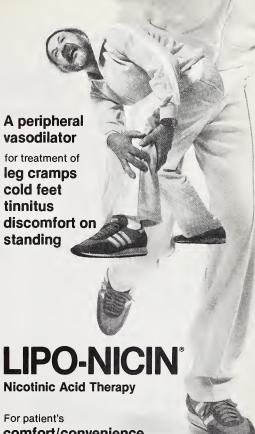
Frederick Greenstein, M.D., 732 E. 91st St., Brooklyn, NY 11236. SUNY-Downstate 1972. Board eligible. Group, partnership, academic, solo. Available July 1982.

Tung-Hua Chieng, M.D., 190 Mineola Blvd., Apt. 4-N, Mineola, NY 11501. Taiwan 1973. Board eligible. Group, partnership, solo. Available July 1982.

H.S. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Group, partnership, solo. Available July 1982.

Jacob Heyman, M.D., 271 Avenue C, Apt. 5-F, New York, NY 10009. Haifa (Israel) 1975. Board eligible. Solo, partnership, single or multispecialty group. Available July 1982.

Richard A. Chazkel, M.D., 201 East 25 St., New York, NY 10010. Hahnemann 1976. Board eligible. Group, solo, partnership. Available July 1982.



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and Geriatricians #321

> Monday to Wednesday, December 13-15, 1982

TENTH ANNUAL COMPREHENSIVE PSYCHIATRY BOARD REVIEW

> For Psychiatrists and Neurologists #561

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ONE ON ONE

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NJ 6/82

LETTERS TO THE EDITOR

Microsurgical Treatment of Carpal Tunnel Syndrome

April 12, 1982

Dear Doctor Krosnick:

I congratulate *The Journal* for the two articles on microsurgical treatment of carpal tunnel syndrome (April, 1982), a subject common in clinical practice.

However, in the article by Hubschmann et al., I believe two serious errors in judgment were made. The first involves the incision, which is on the radial aspect of the hand and places in jeopardy the palmar cutaneous branch of the median nerve. The second is the lack of use of a tourniquet. Any incision in the carpal canal on the radial aspect also potentially violates the motor

branch of the median nerve and any aberrant course of that nerve. These have been well documented in recent literature. Failure to use a tourniquet further jeopardizes these two important branches of the median nerve.

(signed) James B. Massengill, M.D. Director, Division of Hand Surgery UMD-New Jersey Medical School

April 23, 1982

Dear Dr. Krosnick:

We have read with interest the letter by Dr. Massengill and we thank him for his comments. It is our opinion, however, that his concerns reflect the philosophy of the premicrosurgical era. Using 3.5x to 6x magnification for our procedure, we not only are able to identify easily all the branches of the median nerve, but also are able to coagulate small bleeding points with bipolar cautery. This assures essentially a bloodless field and eliminates the need for a tourniquet. Furthermore, the radical extent of the incision which is necessary in only a small number of cases is located within a natural skin crease and thus assures better healing.

We might add that we now have operated on over 50 patients using this technique and have encountered none of the problems predicted by Dr. Massengill.

(signed) Otakar R. Hubschmann, M.D. Abbott J. Krieger, M.D.

CME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

NEUROLOGY/PSYCHIATRY

July

- Lithium: Update on Use and Effects
- 8 Tricyclics and Tetracyclics
- 15 Antipsychotic Medication
- 29 Beta-blockade

12 noon-1 p.m.—Carrier Foundation,

- Belle Mead (Carrier Foundation and AMNJ)
- 6 Psychiatric Case Conference 13 7:30-9:30 a m — Trenton Psych
 - 7:30-9:30 a.m.—Trenton Psychiatric Hospital
- 27 (Trenton Psychiatric Hospital and AMNJ)
- 7 Child Psychiatry Case Conference
- 14 8:30-10:30 a.m.—Trenton Psychiatric
- 21 Hospital
- 28 (Trenton Psychiatric Hospital and AMNJ)

Aug.

- 3 Psychiatric Case Conference
- 10 7:30-9:30 a.m.—Trenton Psychiatric
- 17 Hospital
- 24 (Trenton Psychiatric Hospital
- 31 and AMNJ)

- 4 Child Psychiatry Case Conference
- 11 8:30-10:30 a.m.—Trenton Psychiatric
- 18 Hospital
- 25 (Trenton Psychiatric Hospital and AMNJ)
- 5 The New Antibiotics
- 12 Clinical Applications of the
 - Dexamethasone Suppression Test
- 19 CAT Scan in the Diagnosis of Schizophrenia
 - 12 noon-1 p.m.—Carrier Foundation, Belle Mead
 - (Carrier Foundation and AMNJ)

RADIOLOGY

Aug.

18 Nuclear Medicine Update

10:30 å.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ) Are your dental bills taking a bite out of your savings?

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Dr. Richard W. Gosling

Richard Woodley Gosling, M.D., a member of our Monmouth County component, died on March 19, 1982. Born in 1925 in Spring Lake, Dr. Gosling was graduated from New York University-Bellevue Medical Center in 1952; he completed an internship at Fitkin Memorial Hospital in 1952 and from 1953 to 1955 he served in the United States Army as a first lieutenant. For 25 years Dr. Gosling was an Attending Physician in the Department of Obstetrics and Gynecology, Jersey Shore Medical Center, Neptune. Dr. Gosling was a member of the American Medical Association.

At the grand age of 94, Arthur A. Hochheimer, M.D., of Bound Brook, died on April 1, 1982. Born in Germany, Dr. Hochheimer was graduated from the University of Berlin in 1909. Dr. Hochheimer was an emeritus member of our Somerset County component and a member of the American Medical Association. He retired from practice in 1975.

Dr. Arthur A. Hochheimer

Dr. Sigurd E. Johnsen

At the untimely age of 54, Sigurd Edward Johnsen, a member of our Passaic County component, died on April 18, 1982. Born in 1928, Dr. Johnsen was graduated from Cornell Medical School in 1950 and completed a residency at Temple University, Philadelphia. Dr. Johnsen was a Diplomate of the American Board of Radiology. During his 25-year career, Dr. Johnsen was affiliated with General Hospital, Passaic.

Dr. Solomon Z. Nieman

At the grand age of 82, Solomon Z. Nieman, M.D., died on March 28, 1982. Dr. Nieman graduated from the University of Arkansas School of Medicine, Arkansas in 1925. He retired from his orthopedic practice in 1969. A member of our Middlesex County component, Dr. Nieman was a Fellow of the American College of Surgeons and a member of the American Medical Association. During his career, Dr. Nieman was affiliated with two New Brunswick hospitals, St. Peter's Medical Center and Middlesex General Hospital.

Dr. Robert N. Rubenstein

Word has just been received of the death of Robert N. Rubenstein, M.D., a member of our Hudson County component, on January 14, 1982. Born in 1906, Dr. Rubenstein earned a medical degree at the University of Maryland in 1932. Dr. Rubenstein was an Attending Physician at Christ Hospital, Jersey City. He was a member of the American Medical Association.

Dr. Bela Szinegh

A member of our Essex County component, Bela Szinegh, M.D., an ophthalmologist, died on January 30, 1982. Born in 1909, Dr. Szinegh earned a medical degree at the University of Pecs, Hungary, in 1935. During her career she was affiliated with two Montclair hospitals, The Mountainside Hospital and St. Vincent's Hospital, and the Eye and Ear Infirmary, Newark. Dr. Szinegh was a member of the American Medical Association and the Academy of Medicine of New Jersey.

Dr. Edward L. Waldron

Edwin Louis Waldron, M.D., a member of our Mercer County component, died on April 14, 1982. Born in Trenton in 1904, Dr. Waldron earned a medical degree at the University of Pennsylvania Medical School in 1933. A lifetime Mercer County resident, Dr. Waldron was a staff member at Mercer Medical Center. He was a member of the American Medical Association, a Fellow of the American Academy of Ophthalmology and Otolaryngology, and a Diplomate of the American Board of Otolaryngology.

Dr. W. Alan Wright

On March 22, 1982, Walter Alan Wright, M.D., a member of our Essex County component, died, Dr. Wright was a well-known anesthesiologist who helped research and develop antihistamines, sulfa drugs, and steroids in the 1940s and 1950s; his research helped develop and market such drugs as Coricidin® and Tetracycline®. Born in 1910 in Trenton, Dr. Wright earned a medical degree at Temple University, Philadelphia, in 1939. From 1940 to 1945, Dr. Wright served with the Federal Trade Commission in Washington, DC, as Principal Medical Officer. For the next five years, he was Associate Director of Clinical Research at Schering Corporation, Bloomfield. During President Harry S. Truman's administration, Dr. Wright served as special medical consultant to the White House. At the time of his death, Dr. Wright was Attending Physician at Saint Barnabas Hospital, Livingston. Dr. Wright was a Fellow of the American College of Allergy and the American College of Anesthesiologists; he was a member of the American Medical Association.

Annual Review of Neuroscience

W. Maxwell Cowan (ed). Palo Alto, CA, Annual Reviews Inc. Pp. 392. (\$22)

The essays in Annual Review of Neuroscience best would be read and pondered in the easy chair on a quiet evening with time to think about how we know the ways of Fachte perception and the position of the body in space. Sections more directly related to patient care discuss multiple sclerosis, inherited metabolic storage disorders, and human memory. Each author helps the reader to think about the subject within the perspective of basic science and the promising directions for future research. Clinical pearls are not presented. Simplifications are avoided. For the clinician, this volume will be most stimulating when he is comfortable, stepping back several paces from the bedside to consider, for instance, the relevance of nervous system transmission in other species.

There are 15 chapters, generally 15 to 50 pages long, each by a thoughtful expert. I would have preferred more illustrations. The price is better than right at \$22.

Damon M. Fellman, M.D.

Current Medical Diagnosis and Treatment 1982

M.A. Krupp, M.D., M.J. Chatton, et al. Los Altos, CA, Lange Medical Publications, 1981. Pp. 1113.

Now in its 20th year of annual revision and printed in nine languages, Current Medical Diagnosis and Treatment 1982 has become a standard quick reference in hospital libraries and doctors' offices throughout the world.

The book is divided into 33 chapters; there is an index making it easy to look up specific diseases and other items of interest. It is unlikely that anyone would read the entire book cover to cover. But the text proved very useful on my desk to look up a few diseases and to check

myself on drugs of choice several times each day.

The author list is heavily weighted by west coast experts, but 1 noticed no regional bias. I recommend it highly to every clinician from clinical clerk to professor for purchase and daily use. Expert readers will argue with certain sections, as 1 did with the section on Raynaud's disease and phenomenon, but every section at least will help the novice. One or two current references are given on each section for more advanced and complete study.

Norman Riegel, M.D.

Medical Physiology

W.F. Ganong, M.D. Los Altos, CA, Lange Medical Publications, 1981. Pp. 628.

Medical Physiology is a standard medical school textbook now in its tenth edition, issued biannually in 12 languages. There are seven sections including nerve and muscle cells, endocrinology, metabolism, GI function, circulation, respiratory, and urine. Each section is a thorough yet concise review of the physiology of the subject organ system. The text is authoritative to this reviewer and helps the curious physician understand the how and why when dealing with a patient's illness. I found the text delightful to read in an effort to refresh myself in this basic medical science.

Many of us have a similar learning and forgetting curve and because physiology is studied early in medical school, it largely has been forgotten by most of us; also, there have been numerous advances in the data base and in conceptualization. I would recommend purchase of this book by the practitioner who plans to read it slowly in his/her spare time over a period of months. It should be in every hospital library to encourage house officers to learn the physiological background of the underlying problems they see daily.

Norman Riegel, M.D.

A Theory of Medical Ethics Robert M. Veatch, M.D., New York, NY, Basic Books, Inc., 1981. Pp. 387. (\$20.95)

In this impressive book, Robert Veatch, M.D., develops a framework for medical ethics based on traditional, religious, and philosophic attitudes, but with a distinctly contemporary slant.

Dr. Veatch's credentials are impressive. A leader in the burgeoning field of medical ethics, Dr. Veatch is a Professor of Medical Ethics at the Kennedy Institute of Ethics, Georgetown University and previously was associated with the Hastings Center.

Dr. Veatch's approach is erudite and articulate. In addition to reviewing the Hippocratic tradition, he comprehensively surveys western and eastern religious attitudes. The author has no tolerance for medical paternalism; while acknowledging that physicians may be well intentioned, he suggests that they are ill-prepared unilaterally to make moral judgments in situations when more than purely scientific issues are involved. Rather, Dr. Veatch advocates redistributing the responsibility of decision making between patient and physician, and insists that any approach to medical ethics should be consistent, logical, and not based on spur-of-themoment decisions.

Surprisingly, A Theory of Medical Ethics is quite readable. The book's success is attributable, in part, to the interspersion of 12 cases that illustrate selected ethical issues, including: The Human Murder of a Helpless Infant; Physician Advertising and the FTC; The Homosexual Husband; and Active Killing With Parental Consent.

The book's coherence reflects the fact that it is a carefully developed and balanced statement by a single author. Those looking for a quick cookbook approach and easy answers to common clinical problems will be frustrated by A Theory of Medical Ethics, but those willing to explore this challenging subject in depth will be well rewarded.

Michael Nevins, M.D.

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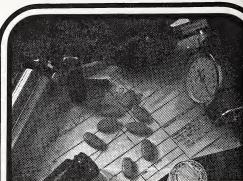
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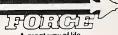
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Patients with Lung Cancer B.H. Safirstein, M.D., et al.

Table of Contents
Page 540

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Oral / Sublingual Tablets: Cardidate (Erythrityl Tetranitrate) may be administered either sublingually or orally. Therapy may be initiated with 10 mg, prior to each anticipated physical or emotional stress and at bedtime for patients subject to nocturnal attacks. The dose may be increased or decreased as needed.

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Journal of the Medical Society of

New Jersey

America's First Medical Society

CONTENTS

547 PROFESSIONAL LIABILITY COMMENTARY

FDITORIAL

549 Nuclear Arms Freeze

ARTICLES

- 553 Experience with Extracranial/Intracranial Bypass Arnold Byer, M.D., Charles M. Moss, M.D., Newark John Hubbard, M.D., Robert Rubin, M.D., George Jacobs, M.D., Bronx, NY
- Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage J.V. Cholankeril, M.D., J.S. Cenizal, M.D., R. Huda, M.D., M. Sananman, M.D., B. Schanzer, M.D., Elizabeth
- 567 The Child in Sports William J. Farley, M.D., Brielle
- 573 Survival Among Patients with Lung Cancer
 B.H. Safirstein, M.D., J. Goldshlack, D.O., R.F. Sarama, M.D., Newark

CASE REPORTS

- 577 Mitral Valve Prolapse in Systemic Amyloidosis: An Unusual Association S.M. Austin, M.D., J.L. Cohen, M.D., V. Batuman, M.D., Newark
- 583 Spontaneous Bloody Pneumothorax: Case Report and Literature Review D.A. Morgenstern, M.D., J.T. Davidson, M.D., J.J. Chandler, M.D., Princeton
- 587 Cholecystocholedochal Fistula Richard K. Spence, M.D., and Verenando Juarique, M.D., Camden

CLINICAL NOTE

591 Spurious Hyponatremia in Diabetic Ketoacidosis with Massive Lipid Elevations Michael H. Goldman, M.D., and Massoud Kashani, M.D., Englewood

THERAPEUTIC DRUG INFORMATION

595 New Drugs: Part Two

NUTRITION UPDATE

597 Diet Recommendations for Prevention of Coronary Heart Disease

WHAT IS YOUR OPINION?

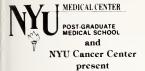
599 Civilian Military Contingency Hospital System Jack R. Karel, M.D., Verona

DOCTORS' NOTEBOOK

- 601 Trustees' Minutes: April 18, 1982
- 603 Trustees' Minutes: May 14, 1982
- 605 New Members
- 606 UMDNJ Notes
- 607 MSNJ Auxiliary
- 608 As We Face Another Spring, Richard I. Nevin
- 609 Executive Coordinator Named
- 610 Scholarship Recipient
- 611 Passaic Physician Elected to National Society Position
- 611 Vocational Rehabilitation Service
- 611 Physicians Seeking Location in New Jersey
- 615 LETTERS TO THE EDITOR
- 618 CME CALENDAR
- 618 **OBITUARIES**
- 620 BOOK REVIEWS



On The Cover: Interest in sports medicine has mushroomed in the past few decades. An overview of organized sports programs for children is presented to emphasize possible psychological hazards and social implications. A series of axioms by the author, William J. Farley, M.D., a practicing pediatrician, points out certain myths, misconceptions, and areas of controversy concerning competitive athletics. Story on page 567. Cover illustration by Susan Cermele.



Epidemic Kaposi's Sarcoma & Opportunistic Infections in Homosexual Men:

Expression
Of An
Acquired
Immunoregulatory
Disorder

Thursday-Saturday March 17-19, 1983

Organizing Committee: Alvin E. Friedman-Kien, M.D. Linda Laubenstein, M.D. Franco Muggia, M.D. This symposium is designed to offer a broad overview of the recently recognized epidemic of Kaposi's sarcoma and acquired immunoregulatory disorders in homosexual men. The program affords an unusual opportunity to analyze the interrelationships between the environmental, genetic and immunologic factors in the pathogenesis of this unique neoplasm and its multifaceted clinical and basic science implications.

PROGRAM TOPICS

 Clinical expression and treatment modalities for the epidemic form of Kaposi's sarcoma: similarities and differences from the classical presentation of the disease.

 Details of the acquired immunoregulatory disorder including clinical and in vitro characterization of the defects in cell mediated immunity, possible role of circulating immune complexes and HLA alloantigens.

Epidemiologic investigations aimed at defining the causes of this outbreak in homosexual men; the possible roles of changing lifestyles, use of "recreational" drugs and sexually transmitted diseases.

The spectrum of opportunistic infections, such as Pneumocystis carinii pneumonia, cytomegalovirus, Epstein-Barr virus, cryptococcosis and atypical Mycobacterium: The potential role of viruses as the causative agent of the immunologic disorder.

A workshop on Saturday morning will focus on the practical clinical management of common diagnostic and therapeutic problems encountered in patients with the acquired immunodeficiency syndrome, such as lymphadenopathy, diarrhea, unexplained fever and pulmonary infiltrates.

A NATIONALLY DISTINGUISHED GUEST FACULTY WILL PARTICIPATE

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Accreditation: 17 AMA Category I Credit Hours

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Return with check payable to NYU Post Graduate Medical School to: Registration Department, NYU Post-Graduate Medical School Room 4-37-N LHB, 550 First Avenue, New York, N.Y. 10016 (212) 340-5295 (24-hour telephone)			Amount Enclosed	
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CONTENT

The education content of each issue appears as scientific articles, based on research, original concepts relative to epidemiology of disease, and treatment methodology; case reports based on unusual clinical experiences; review articles; clinical notes, succinct items on some aspect or new observation or technique of a case experience; and special articles, which include evaluations, policy and position papers, and reviews of nonscientific subjects. Other topics include commentary (critical narration); medical history; therapeutic drug information; pediatric briefs; nutrition update, and an opinion column. Editorials are prepared by the Editor and by guest contributors on timely and relevant subjects; editorials are the responsibility of the author. The Doctors' Notebook section contains organizational, informational, and administrative items from the Medical Society and from the community. Letters to the Editor and book reviews are welcome and will be published as space permits. The principal aim in the preparation of contributions should be relevance to diagnosis and treatment and to education of patients and professionals. Preference will be given to professional authors from New Jersey and to out-of-state lecturers who submit a suitable manuscript based on a presentation made in New Jersey.

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Authors are asked to seek clarity, accuracy, and originality; attention to details of grammar, spelling, and typing are important.

The title page should include the full name, degrees, and

affiliations of all authors, and the name and address of the author to whom reprint requests should be sent.

The author should submit a 50-word **abstract** to be used at the beginning of the article.

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The summary of the article should not exceed 250 words; it should contain only essential facts.

References should not exceed 35 citations except in review articles, and should be cited consecutively in the text by numbers in parentheses at the end of the sentence. The reference list should be typewritten and double-spaced on separate 8-1/2 by 11" sheets in the numerical order in which they are first cited in the text. The style of reference is that of *Index Medicus*:

- 1. Goldwyn RM: Subcutaneous mastectomy. J Med Soc NJ 74:1050-1052, 1977.
- 2. Dixon WJ, Massey FJ: Introduction to Statistical Analysis. New York, NY, McGraw-Hill, 1969, Pp. 00-00.

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ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION:

INSOMNIA

Others to look for:

agitation
anorexia
feelings of guilt
and worthlessness
fatigue
palpitations
headache
vague aches
and pains
sadness

psychic and somatic anxiety

Artist's conception, looking out from the human eye as conceived in a schematic model,



LIMBITROL GIVEN H.S.: ONE OF THE VITAL SPECIFICS OF TREATMENT

Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include anorexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vague aches and pains.

Limbitrol given once daily h.s. may be the best approach

Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol®

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride solf)

Tablets 10-25 each contoining 10 mg chlordiazepaxide ond 25 mg amitriptyline (as the hydrachlaride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant Before prescribing, please cansult camplete product information, a summary of which follows:

Indications: Relief at moderate to severe depression associated with moderate ta severe anxiety

Contraindications: Known hypersensitivity to benzadiazepines or tricyclic antidepressants. Do not use with manaamine axidase (MAO) inhibitors or within 14 days tallowing discontinuation at MAO inhibitors since hyperpyretic crises, severe canvulsians and deaths have accurred with cancamitant use, then initiate cautiously, gradually increasing dasage until aptimal response is achieved. Cantraindicated during acute recovery phase tallowing myacardial

Warnings: Use with great care in patients with history of urinary retention or angle-clasure glaucama. Severe constitution may accur in patients taking tricyclic antidepressonts and antichalinergic-type drugs. Clasely supervise cardiavascular patients (Arrhythmias, sinus tachycardia and pralangatian at canduction time reported with use of tricyclic antidepressants, especially high dases. Myocardial infarction and stroke reported with use at this class of drugs.) Cautian patients about passible cambined effects with alcahal and other CNS depressants and against hazardaus occupations requiring complete

mental alertness (e.g., operating machinery, driving)

Usage in Pregnancy: Use of minar tranquilizers during the first usage in Pregnancy: Use or minor tronquinzers auring the interessed trimester should almost always be avoided because of increased risk at congenital malformations as suggested in several studies. Cansider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported creek, use coultion in administering Limbitral to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise tar amitriptyline, symptoms [including convulsions] similar to those of barbiturale withdrawal for chlordiazenoxide) **Precautions:** Use with caution in patients with a history at seizures, in hyperthyraid patients or those an thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, da not permit easy access to large quantities in these patients Periodic liver function tests and blaod counts are recommended during prolonged freatment. Amitriphyline component may block action at guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated: sedative effects may be additive. psychiatry and the several days before surgery. Limit concomitation damnistration of ECT to essential treatment. See Warnings for precoutions about pregnancy. Limbitrol should not be token during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective. dosage to preclude oftaxio, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component olone drowsness, dry mouth, constipation, blurred vision, duzziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nosal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects at bath Limbitrol and amitriptyline Granulacytapenia, jaundice and hepatic dysfunction have been abserved

The fallowing list includes adverse reactions not reparted with Limbitral but requiring cansideration because they have been reported with one or both companents or closely related drugs

Cardiovasculor: Hypotension, hypertension, tachycardia, palpitations, myo-cardial intarctian, arrhythmias, heart black, stroke.

Psychiatric: Euphoria, apprehensian, poor concentration, delusions, halluci-

nations, hypamania and increased or decreased libido

Neurologic Incoordination, atoxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptams, syncope, changes in EEG patterns Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinory tract

Allergic. Skin rash, urticaria, photosensitization, edema at tace and tangue,

Hematologic: Bone marrow depression including agranulocytosis, easinophilia, purpura, thrombocytapenia Gastrointestinol: Nausea, epigastric distress, vomiting, anorexia, stomatitis,

peculiar faste, diarrhea, black longue.

Endocrine Testicular swelling and gynecamastia in the male, breast enlargement, galactorrhea and minar menstrual irregularities in the temale

and elevation and lowering at bload sugar levels

Other Headache, weight gain or lass, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, paratid swelling
Overdosage: Immediately haspitalize patient suspected of having taken an

averdose Treatment is symptomatic and supportive I.V administration of 1 to 3 mg physostiamine solicylate has been reported to reverse the symptoms of amitriptyline poisoning. See camplete product information for manifestation and treatment

Dosage: Individualize according to symptom severity and patient response Reduce to smallest effective dosage when satisfactory response is obtained Larger partion at daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly Limbitrol 10-25, initial dasage at three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required Limbitral 5-12 5, initial dasage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-caated tablets, each containing 10 mg chlor diazepoxide and 25 mg amitrippline (as the hydrochlaride sall) and blue lilm-coaled tablets, seach containing 5 mg chiadracepoxide and 12.5 mg amitrippline (as the hydrochlaride sall)—bottles of 100 and 500, Tet-E-Dose* pockages at 100, available in Irays at 4 reverse-numbered baxes at 25, and in boxes containing 10 strips of 10, Prescription Paks at 50



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Featuring: The Treatment of A Minor

THE PHYSICIAN, THE ADOLESCENT, AND THE CONSENT PROBLEM

One of the most common medicolegal questions physicians are confronted with arises when an adolescent, unaccompanied by a parent, seeks medical care. Thirty years ago the matter was simple; a physician had the right (indeed, the obligation) to treat a child who needed emergency care without obtaining prior consent from the parents. However, the physician was dissuaded from providing nonemergency care and was forbidden to subject a child to a nontherapeutic procedure by law (Bonner v. Moran 126F. 2d 121, 1941).

Over the past 30 years, however, there has been a steady growth in the concept of the emancipated minor. College students, boarding school students, soldiers, and married persons, regardless of age, in the eyes of the law are able to seek and decide upon medical treatment without parental consent. During the 1960s, many states adopted "minor treatment statutes." The content varied, but most of these laws permitted adolescents (the age limit usually was 15 or 16 years old) to consent to "ordinary medical treatment," a murky phrase that was not defined further.

As the sexual revolution blossomed, physicians were overwhelmed by children with treatable venereal disease who refused to divulge the whereabouts of their parents. In the late 1960s, many states enacted special laws to permit doctors to treat minors for sexually transmitted illnesses regardless of age. Shortly after this wave of legislation, a second set of laws was adopted to permit minors to seek treatment for drug abuse problems without parental knowledge. Oddly enough, however, persons under the age of 18 still are not allowed to donate blood.

The trend toward permitting minors to assume increased independence in seeking medical help continued to grow in the 1970s. In 1974, the Committee on Youth of the American Academy of Pediatrics adopted a model act, not yet voted into the law by the states, that urged any person, regardless of age, "of sufficient intelligence to appreciate the nature and consequences of the proposed medical care and if such medical care is for his own benefit, effectively may consent to such medical care in doctor-patient confidentiality." In 1976, the United States Supreme Court struck down a law that conditioned the right of a minor to obtain an abortion upon parental consent (Planned Parenthood of Missouri v. Danforth 424 U.S. 100, 1976).

The corollary to the development of a child's right to seek medical care without parental guidance is the right to refuse care, even if recommended by doctors and parents. Although courts infrequently have ruled on this issue, a minor may refuse to undergo an abortion (Smith 295 A. 2d 238, 1972). Similarly, a teenage boy committed by his parents to a state mental institution as a voluntary patient was held to have the right to leave whenever he wished (Melville v. Sabbatino 313

A. 2d 886, 1973). (Philip Reilly, J.D., M.D., Medical Liability Monitor, April, 1982)

NEW JERSEY'S APPROACH TO TREATMENT OF A MINOR

New Jersey's minor treatment statute is NJSA § 9:17A-1 et seq. Under this statute, married minors and pregnant minors may obtain medical or surgical care for themselves and their children without parental consent. Minors also may consent to medical care for the treatment of venereal disease, drug use, or drug dependency.

Minors who are students in New Jersey public schools and who are suspected by school personnel of being under the influence of a controlled dangerous substance or other chemicals are required under NJSA 18A:40-4.1 to undergo immediate physical examination by a physician. The law provides that this physical examination may be conducted by a physician selected by the parents or by the school physician. Where such physicians are not available immediately, the state authorizes school personnel to take the student to a hospital emergency department for examination by an emergency physician. Immunity from liability for nonnegligent acts in examining the student is conferred on the examining physician by NJSA 18A: 40-4.2.

What is the potential risk of liability for a New Jersey physician who provides medical care to a minor for a condition not related to pregnancy, venereal disease, or drug use?

In the absence of a life-threatening emergency, the physician who treats a minor without having obtained the consent of the minor's parent(s) or legal guardian is at some risk of incurring liability for battery. While this risk may be minimal (parents rarely sue physicians for providing appropriate care to a child), the physician should be mindful that acts constituting battery may not be covered under the terms of their professional liability insurance policies.

Where the minor patient's condition is not life threatening but nonetheless requires treatment without undue delay, the physician should attempt to contact the responsible adult before rendering care. Efforts to this end should be documented in the patient's medical record. In such cases, the more prudent course of action would be to treat the minor who requires care rather than risk potential increased injury attributable to delay in obtaining the prior consent of the parent(s).

It is difficult to find a case in which a physician has been successfully sued for giving appropriate care to a minor.

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department and Assistant Director and Editor.

Therefore, as a general rule, it is safer to err on the side of treatment when good medical care for the minor requires such and a properly consenting adult is unavailable.

AN ANALYSIS OF MEDICAL MALPRACTICE

Max Sonderby, publisher of *Cook County Jury Verdict Reporter*, has analyzed the medical malpractice pattern of Cook County, IL, and found that the pattern reflects the experience of other areas in the nation.

Cook County experienced an escalation of medical malpractice cases in the early 1970s with a peak in 1975-1976, followed by a two-to-three-year period of decline. Since 1980, there has been a steady rise in dollar payouts with a more modest increase in the number of cases filed.

"The high was in 1976," claims Mr. Sonderby, "with 50 medical malpractice trials bringing 14 guilty verdicts, 17 not guilty verdicts, and 2 deadlocked juries. Verdicts totaled \$12.77 million, mostly accounted for in two large claims; one for \$9 million and another for \$3.32 million. The trend seems to be fewer trials, more suits filed, and more settlements."

Mr. Sonderby also noted that since September, 1981, there have been more malpractice trials involving other professionals than medical professions. (*Loss Minimizer*, April, 1982)

PUBLIC IMAGE AND HUMANISTIC PHYSICIANS

Part of any profession's self-maintenance lies in its public image, and the American public at present is of two minds in regard to its doctors. The family's personal physician still is held in high regard, many of them in affection, and the profession of medicine ranks highest in public admiration. Yet as a group, doctors have slipped several notches in public regard and now roundly are castigated by labor and political orators—often unfairly—for defects in the expensive system of health care over which physicians have little control. In general, people are quizzical about physicians for a number of reasons. Part of the animus comes from the general unrest and impatience with authority in the western world, coupled with the belief that anything long established is probably corrupt.

What people hear and read and, perhaps, what they have experienced cause them to be unhappy about the medical profession on a number of counts. The image of devoted family doctors of old is replaced in many minds by particularly efficient and capable young professionals, scientifically better equipped than all of their predecessors, but often in a hurry, sometimes brusque, and affluent. People see this as inappropriate in a profession that holds itself interested in humanitarian goals. These doctors have lost sight of Galen's famous axiom, "He cures most successfully in whom the patients have the greatest confidence."

Along with the criticism, we might note another factor which is operative in the nation at large and which also affects medicine; namely, that we seem to have lost our heroes, due in part to the scandal in high places and to the general debunking spirit that is manifest in this rationalistic age. Unfortunately, with this spirit there is a pervading

cynicism abroad and a false egalitarianism that seems only to be comfortable when all are believed to be reduced to a single standard of mediocrity.

This uneasy state of medicine's relations with the public is worrisome. The state of the economy does not help. It is obvious that the unrest has not come about because of medicine's scientific acumen; rather the public becomes angry and sometimes litigious because of real or fancied slights, rejection, or lack of consideration. With all of their knowledge and skills, some doctors seem to be unable to communicate to patients the fact that physicians are interested in patients and that physicians do care.

A major criticism frequently heard is that the doctor does not listen to patients' complaints which, translated, also means the doctor does not spend time with patients or exhibit sympathetic interest in them as persons. Physicians, secure in their scientific knowledge, do not seem to realize that patients need more than that. True, there are patients who, if permitted to talk freely, would use up all of a doctor's time, but most individuals are satisfied with good manners, time, respect, understanding, and some show of empathy. One can educate students and physicians even until old age and unless they are capable of some display of warmth and interest in the patient as well as in the disease they are treating, the physician will be found wanting. (Francis J. Braceland, M.D., Psychiatry: The Wanderer Heads Home, May, 1982, in Carrier Foundation Letter)

DID YOU KNOW . . .

After waiting 80 minutes to have a tooth pulled, a patient left the dentist's office and went to small claims court? "The judge did not buy the theory that a doctor's time was too valuable to be wasted if someone does not show, thus the overscheduling of patients." The plaintiff was awarded \$85.03 in lost wages for time spent waiting in the office away from his job. (*Private Practice*, April, 1982)

MIIENJ has entered its sixth consecutive year of writing professional liability insurance for New Jersey physicians?

Governor Hugh Carey of New York has introduced a bill to create a medical catastrophe fund financed by health insurers and large companies self-insuring their health insurer benefits?

Florida hospitals are incensed over their increase in contributions to the state's Patient Compensation Fund, which hospitals feel is for larger proportionates than those of physicians? The fund reportedly is not on good financial ground with some \$177 million in predicted losses for six policy years, of which only \$78 million in premiums had been generated during the same period.

SPECIAL NOTICE

An excellent booklet, entitled Amniocentesis for Prenatal Chromosomal Diagnosis, has been prepared by the Center for Disease Control for prospective parents who may present a higher-than-normal risk of having a child with birth defects. Copies may be requested through this Department at MSNJ, (609) 896-1766.

Nuclear Arms Freeze

The House of Delegates of the Medical Society of New Jersey at its 216th Annual Meeting considered and took a position on the question of nuclear arms control.

Some statements on the subject from national authorities include the following:

"The freeze initiatives are an attempt by the people of this country to do something, to get the attention of our leaders, and to say that we must put an end to this madness that has been going on for the past 35 years. No one suggests that a freeze is an end in itself. It is a beginning that must be followed immediately by an orderly, thoughtful, realistic, and verifiable reduction in nuclear arms, and a renewed dedication to the prevention of a further spread of nuclear weapons."

Marvin Goldberger, Atomic Scientist President, California Institute of Technology

"The calls for huge increases in defense spending make us wonder. So have the absurd statements by Administration officials that a nuclear war can be survived, if one has a shovel and can dig a hole fast enough. It is a form of sickness not to face up to and deal with the situation. But people are beginning to emerge from that sickness and come to grips with it."

Alan Cranston Democratic Senator, California

"The rulers in the Kremlin are as eager as Hitler was to get power over the whole world. But unlike Hitler, they are not gamblers. If we can put up a missile defense that makes their attack dubious, chances are they never will try the attack. We can avoid a third world war, but only if strength is in the hands of those who want peace more than they want power."

Edward Teller

"Father" of the Hydrogen Bomb Administration Science Advisor

"The escapism of the right is to treat nuclear weapons just like other weapons in warfare; the escapism of the left is to treat them as though you could make them all go away. If you do not believe either of those is realistic, then you have to continually think how to make sure that you preserve a careful management of nuclear weapons."

Joseph Nye Former Deputy Under Secretary of State for Nonproliferation Policy

It is shocking to learn that our government leaders believe a limited nuclear war is feasible and that they are making plans to deal with a protracted military operation involving the Soviet Union in which a number of nuclear exchanges might take place over a period of time.

Physicians must understand that nuclear arms have the potential to cause "the ultimate health problem." In comparison to this issue, all other medical challenges wither in relative importance.

Resolution #7, introduced by the delegation from Burlington County, states:

Whereas, expressions of concern over the danger of nuclear war have engendered calls from church groups, township councils, student publications, and the United States Congress for a freeze on development and deployment of nuclear weapons; and

Whereas, physicians are as concerned as any group about preventing nuclear war; and

Whereas, a freeze on nuclear weapons at this time only will legitimize wide advantages now enjoyed by the Soviet Union and lessen the need for compromise by the Soviets; and

Whereas, any pressure exerted upon Western democratic governments for nuclear disarmament is not matched by similar pressures upon the Soviet leadership; now therefore he it

Resolved, that the Medical Society of New Jersey considers a freeze on development and deployment of nuclear arms more likely to cause war than prevent it and counterproductive to the interests of the free world; and be it further

Resolved, that the Medical Society of New Jersey supports reduction in nuclear arms through the Strategic Arms Reduction Talks.

The Resolution was adopted by the House.

It is urgent that individual physicians and organized medicine take a position on this subject. It is proper that we make our opinions known to our leaders and to our patients. The subject has gained worldwide attention and the medical community must not look the other way.

One must not be confused by buzz words, such as "nuclear freeze," versus "nuclear reduction." It should be obvious that nuclear reduction cannot take place until and unless the parties stop developing new weapons (a freeze) and begin to destroy existing stockpiles of weapons. One would hope that our world leaders could grow to the point where all nuclear weapons were eliminated, but to date, that hope has little substance.

The urgency of the matter only can be capitalized by the recent events in the Falkland Islands war, a situation that had the potential to polarize the world and to expand to an experiment in nuclear confrontation.

The voices of medical authorities must be heard. Nuclear war will be the last great epidemic from which the world in its present form will not survive.

A.K.

HYPERTENSION:



METHYLDOPA? RESERPINE? INDERAL? COUNTLESS L—instead of reserpine. THOUSANDS

Today, INDERAL—instead of methyldopa, instead of reserpine.

INDERAL exhibits few of the disturbing side effects of methyldopa and reserpine. Sedation, depression, and impotence are rare. Tolerance is not likely to occur, as it frequently does with methyldopa. For the vast majority of patients—INDERAL means a step toward improving the quality of life. (INDERAL should not be used in the presence of congestive heart failure, sinus bradycardia, heart block

greater than first degree, and bronchial asthma.)* INDERAL blocks beta-receptor sites in the heart to reduce heart rate and cardiac output—reducing cardiac work load—sparing an overburdened heart.

Hypertensive hearts can rest easy with INDERAL.

For many—it is ideal, first-step therapy. INDERAL—the sooner, the better for hypertension—a leading risk factor in coronary heart disease.

ERAL PRANOLOL HCI) **B.I.D.**

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The sooner, the better.



THE MOST WIDELY PRESCRIBED BETA BLOCKER IN THE WORLD INDERAL (PROPRANOLOL HCI) B.I.D. FOR HYPERTENSION

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR) Inderal® BRAND OF propranolol hydrochloride A beta-adrenergic blocking agent

BEFORE USING INDERAL (PROPRANOLOL HYDROCHLORIDE), THE PHYSICIAN SHOULD BE THOROUGHLY FAMILIAR WITH THE BASIC CONCEPT OF ADRENERGIC RECEPTORS (ALPHA AND BETA), AND THE PHARMACOLOGY OF THIS DRUG

CONTRAINDICATIONS

NDERAL is contraindicated in 1) bronchial ashma; 2) altergic minitis during the pollen season, 3) sinus bradycardia and greater than first degree block, 4) cardiogenic shock, 5) right ventricular failure secondary to pulmonary hypertension, 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL; 7) in patients on adrenergic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs.

WARNINGS

CARDIAC FAILURE. Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta-blockade always carries the potential hazard of further depressing myocardial contractility and precipitating cardiac failure. INDERAL acts selectively without abolishing the inotropic action of digitalis on the heart muscle (if e., that of supporting the strength of myocardial contractions). In patients already receiving digitalis, the positive inotropic action of digitalis may be reduced by INDERAL's negative inotropic effect. The effects of INDERAL and digitalis are additive in depressing AV conduction.

IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure. In rare instances, this has been observed during INDERAL therapy. Therefore, at the first sign or symptom of impending cardiac failure, patients should be fully digitalized and/or given a durefue, and the response observed closely; a) if cardiac failure continues, despite adequate digitalization and durefue therapy, INDERAL therapy should be immediately withdrawn: b) if tachyarrhythmia is being controlled, patients should be maintained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENT'S WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infaction, following abrupf discontinuation of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced and the patient carefully montrored. In addition, when INDERAL is prescribed for angina pectors, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unitable angina pectors. Since coronary aftery disease may be universognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given prograndol for other indications.

IN PATIENTS WITH THYROTOXICOSIS, possible deletenous effects from long term use have not been adequately appraised. Special consideration should be given to propranolol's potential for aggravating congestive heart failure. Propranolol may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing propranolol slowly Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

IN PATENTS DURING ANESTHESIA with agents that require catecholamine release for maintenance of adequate cardiac function, beta blockade will impair the desired inotropic effect. Therefore, INDERAL should be intrated carefully when administered for arrhythmias occurring during anesthesia

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli For this respon, with the exception of pheochromocytoma, INDERAL should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emergency surgery, since INDERAL is a competitive inhibitor of beta receptor agonists, its effects can be reversed by administration of such agents, e.g., isoproferenol or levarterenol. However, such patients may be subject to profracted severe hypotension. Difficulty in restarting and maintaining the heart beat has also been reported.

IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-

IN PATIENTS PRONE TO NONAL LERGIC BRÔNCHOSPASM (e.g., CHRONIC BRONCHTIS, EMPHYSEMA), INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta received.

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA. Because of its betaadrenergic blocking activity, INDERAL may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially important to keep in mind in patients with labile diabetes. Hypoglycemic attacks may be accompanied by a precipious elevation of blood pressure. USE IN PREGNANCY The sale use of INDERAL in human pregnancy has not been estab-

USE IN PREGNANCY. The sale use of INDERAL in human pregnancy has not been estal lished. Use of any drug in pregnancy or women of childbearing potential requires that the possible risk to mother and/or fetus be weighed against the expected therapeutic benefit. Embryotoxic effects have been seen in animal studies at doses about 10 times the maxim recommended human dose PRECAUTIONS

Patients receiving catecholamine depleting drugs such as resergine should be closely observed if INDEPAL is administered. The added catecholamine blocking action of this drugmay then produce an excessive reduction of the resting sympathetic nervous activity. Occsionally, the pharmacologic activity of INDERAL may produce hypotension and/or market bradycardia resulting in vertigo, syncopal attacks, or orthostatic hypotension.

As with any new drug given over prolonged periods, laboratory parameters should be o served at regular intervals. The drug should be used with caution in patients with impaired renal or heaptic function.

ADVERSE REACTIONS

Cardiovascular bradycardia, congestive heart failure, intensification of AV block; hypoten sion, paresthesia of hands, arterial insufficiency, usually of the Raynaud type; thrombocytic penic purpura.

Cantral Neurous, System: lightheadeclases, mental depression manifested by incompra

Central Nervous System: lightheadeciness, mental depression manifested by insomna, lassitude, weakness, fatique, reversible mental depression progressing to catationia: veue disturbances, hallucinations, an acute reversible syndrome characterized by discornation for time and place, short term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis

 $\label{eq:Allergic} \textit{Allergic} \ \ pharyngills and agranulocytosis, erythematous rash, fever combined with achieved sore throat, laryngospasm and respiratory distress$

Respiratory bronchospasm

Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpu Miscellaneous reversible alopecia. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not beer conclusively associated with propranotol.

Clinical Laboratory Test Findings Elevated blood urea levels in patients with severe hear disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase

DOSAGE AND ADMINISTRATION

HYPERTENSION—Dosage must be individualized. The usual initial dosage is 40 mg sinDEPAL twice daily, whether used alione or added to a diuretic. Dosage may be increased gradually until adequate blood pressure is achieved. The usual dosage is 160 to 480 mg piday. In some instances a dosage of 640 mg may be required. The time needed for full hype tensive response to a given dosage is variable and may range from a few days to several weeks.

While twice-daily dosing is effective and can maintain a reduction in blood pressure throughout the day, some patients, especially when lower doses are used, may experience a modest rise in blood pressure toward the end of the 12 hour dosing interval. This can be evaluated by measuring blood pressure near the end of the dosing interval to determine whether satisfactory control is being maintained throughout the day. If control is not adequate, a larger dose, or 3 times daily therapy may achieve better control.

At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

INTRAVENOUS

The intravenous administration of INDERAL has not been evaluated adequately in the management of hypertensive emergencies.

OVERDOSAGE OR EXAGGERATED RESPONSE

IN THE EVENT OF OVERDOSAGE OR EXAGGERATED RESPONSE, THE FOLLOWING MEASURES SHOULD BE EMPLOYED.
BRADYCARDIA—ADMINISTER ATROPINE (0.25 to 1.0 mg): IF THERE IS NO RE-

BRADYCARDIA—ADMINISTER ATROPINE (0.25 to 1.0 mg): IF THERE IS NO RE-SPONSE TO VAGAL BLOCKADE. ADMINISTER ISOPROTERENOL CAUTIOUSLY CARDIAC FAILURE—DIGITALIZATION AND DIURETICS HYPOTENSION—VASOPRESSORS, e.g., LEVARTERENOL OR EPINEPHRINE (THERE

HYPOTENSION—VASOPRESSORS, e.g., LEVARTERENOL OR EPINEPHRINE (THE VIDENCE THAT EPINEPHRINE IS THE DRUG OF CHOICE)
BRONCHOSPASM—ADMINISTER ISOPROTERENOL AND AMINOPHYLLINE

HOW SUPPLIED

TABLETS INDERAL (propranolol hydrochloride)

No. 461 – Each scored tablet contains 10 mg of propranoiol hydrochloride, in bottles of 100 and 1,000. Also in unit dose package of 100, No. 462 – Each scored tablet contains 20 mg of propranoiol hydrochloride, in bottles of 100 and 100 propranoiol hydrochloride.

No. 462—Each scored tablet contains 20 mg of propranoiol hydrochloride, in bottles of 100 and 1,000. Also in unit dose package of 100.
No. 464—Each scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of propranoiol hydrochloride, in bottles of 100 had been scored tablet contains 40 mg of 100 had been scored tablet contains 40 mg of 100 had been scored tablet contains 40 mg of 100 had been scored tablet contains 40 mg of 100 had been scored tablet contains 40 mg of 100 had been scored tablet contains 40 mg of 100 had been scored tablet contains 40 mg of 100 had been scored tablet contains 40

and 1,000. Also in unit dose package of 100.

No. 468—Each scored tablet contains 80 mg of proprianolol hydrochloride, in bottles of 100 and 1,000. Also in unit dose package of 100.

INJECTABLE

No. 3265—Each ml contains 1 mg of propranolol hydrochloride in Water for Injection. The

pH is adjusted with citric acid. Supplied as: 1 ml ampuls in boxes of 10

Reference: 1 Freis, E.D., Hypertension (Suppl. II) 3.230 (Nov-Dec.) 1981

7997/482



Experience with Extracranial/Intracranial Bypass

ARNOLD BYER, M.D., CHARLES M. MOSS, M.D., Newark*
JOHN HUBBARD, M.D., ROBERT RUBIN, M.D., GEORGE JACOBS, M.D., Bronx, NY*

The authors present their experience with eight extracranial/intracranial bypass operations in patients with symptomatic occlusion of the internal carotid artery. Followup of 12 to 20 months is available. The indications and contraindications for the operations, operative modifications, and results are included. The subject has broad interest to all physicians.

he relationship of the vascular system and cerebral function is important to all physicians due to the natural history of transient ischemic attacks (TIA) and the potential for completed strokes. Early in this century Chiari made mention of the possibility that carotid artery occlusion and stroke might be related casually. In 1951, Fisher proved this correlation.¹

In 1967, Yasargil and Donaghy performed the first extracranial/intracranial (EC/IC) bypass operation in humans after showing the feasibility of the procedure in animals.² Though several thousand such operations have been performed to date, the procedure still is being evaluated as to its short- and long-term results. We report our results and conclusions that are in agreement with the other published series.³

PATIENT SELECTION AND SURGICAL PROCEDURE

Eight male patients are reported with a followup of 12 to 20 months. All patients were evaluated and operated on at the Hackensack Medical Center. The average age of our patients was 59 years.

Seven of the eight patients originally were seen because of transient ischemic attacks; one patient had a reversible ischemic neurologic deficit (RIND). All eight patients were operated on to relieve symptoms or to protect cerebral vascular integrity by bypassing their unilateral internal carotid artery occlusion. All operations were performed in

the manner originally described by Yasargil, with minor modifications.

The basic principle of the operation is to use the largest branch of the superficial temporal artery and anastomose it to a suitable branch of the middle cerebral artery (Figure 1). Rather than elevate a large scalp flap and dissect out the temporal artery or its donor branch from beneath this flap, we utilize the ultrasonic doppler technique to trace the superficial temporal artery path along the scalp. A single incision is made over this artery that is dissected readily; and, in most instances, the craniectomy may be performed through this same incision. We do not replace the bone when closing the incisions to avoid stenosis of the bypass at the craniectomy site. Also, it allows for spontaneous revascularization from the meninges and temporalis muscle in the event the bypass fails. The small size of the craniectomy (average 4 cm) and the thickness of the temporalis muscle provide sufficient coverage.

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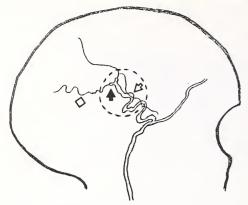


Figure 1—Line drawing showing schematic EC/IC bypass. Hollow arrow indicates parietal branch of superficial temporal artery and solid arrow indicates anastomosis-superficial temporal artery branch to branch of middle cerebral artery. The diamond shape indicates an angular branch of the middle cerebral artery.

POSTOPERATIVE ENLARGEMENT

Determination of postoperative patency ideally is performed by arteriography. In those cases where arteriography was not possible or was refused by the patient, the method of Gratzl and Schmiedek was employed. They utilized the doppler ultrasound flow detector for estimating blood flow in the superficial temporal artery before and after the operation. Recording of the flow signal at the edge of the craniectomy and at the level of the internal auditory canal enables the creation of an A/T quotient, where A equals the amplitude of the donor vessel at the edge of the craniectomy and T equals the amplitude of the signal at the level of the internal auditory canal. An A/T quotient of one or above indicates patency of the bypass. Anything below indicates nonpatency of the bypass. The authors evaluated this in a series of 60 patients and found absolute correlation.

RESULTS

We operated on eight patients with no operative mortality; they remain alive and asymptomatic 12 to 20 months after surgery. All eight bypasses are patent as determined by doppler sonographic evaluation. Arteriography performed on one case has shown the artery to be patent (Figures 2 and 3).

One complication occurred; a transient word dissociation that lasted only three days and completely resolved. No permanent neurologic deficits, infections, flap slough, seizures, or other complications were encountered.

DISCUSSION

The devastating effects of stroke and the beneficial effect of internal carotid artery reconstruction dictate an aggressive approach to the problems of carotid artery disease. Conversely, the terrible price paid by the patient for an error in physician judgment requires constant vigilance. Therefore, the evaluation and selection of patients for cerebral revascularization is an exacting and delicate matter.

Operation for the relief of symptoms due to extracranial cerebral vascular disease has been performed for almost 30



Figure 2A—Preoperative angiogram (AP view) showing super ficial temporal artery (hollow arrow) and complete occlusion of the internal carotid artery (solid arrow) at the distal siphon.

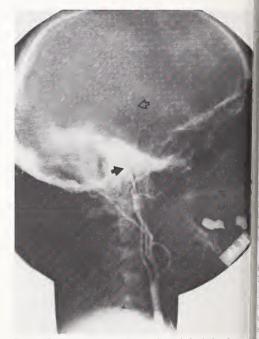


Figure 2B—Preoperative angiogram (lateral view) showing su perficial temporal artery (hollow arrow) and complete occlusio of the internal carotid artery at the distal siphon.



Figure 3A—Three months' postoperative angiogram (lateral view) showing course of enlarged superficial temporal artery (small arrows), anastomosis (solid arrow), and rich revascularization of middle cerebral arteries (hollow arrows).

years; surgery for asymptomatic extracranial cerebral vascular disease has been performed almost as long. It is accepted that total occlusion of an internal carotid artery in the symptomatic patient is indication for revascularization. Unfortunately, the opening of a totally occluded internal carotid artery is difficult and rarely successful. Patency is maintained following the operation in only a small percentage of patients.5 Introduction of the EC/IC bypass by Yasargil provided an opportunity to revascularize successfully the hemisphere of the brain damaged by total occlusion of the internal carotid artery. According to published reports and our own personal experience, the operation can be performed safely with few complications and with excellent long-term patency rates. It remains to be seen whether successful revascularization will improve life expectancy as well as decrease the recurrence of symptoms of these patients.

INDICATIONS AND CONTRAINDICATIONS TO EC/IC BYPASS

Indications for the operation in symptomatic patients generally are considered to be internal carotid artery occlusion with poor collateralization, critical carotid siphon stenosis, middle cerebral artery occlusion or critical stenosis, and vertebrobasilar disease. It is used in patients with carotid aneurysm in whom occlusion of the carotid artery is necessary prior to the operation.



Figure 3B—Three months' postoperative angiogram (AP view) showing approximate anastomosis (solid arrow) and rich revascularization of middle cerebral arteries (hollow arrows).

At present, the most specific indication for EC/IC bypass is complete occlusion of the internal carotid artery or critical stenosis of the intracerebral portion of the internal carotid artery with more than one episode of symptoms referable to that cerebral distribution. There is little experience and no firm opinions as to the suitability of this operation in asymptomatic patients for prevention of future symptomatology. The only firm contraindications for operation are: donor or recipient blood vessels smaller than 1 mm in size, severe progressive life-limiting cardiovascular disease, marked diffuse intracranial small vessel disease, and severe fixed stroke.

The exact indications for EC/IC bypass are being sought in several controlled, multicentered studies presently being performed in the United States and abroad. The lack of certain answers should not deny patients the potential benefit of a bypass. Wide experience shows the operation to be safe provided that a skilled operating team, well versed in microvascular techniques, has the necessary operating room and other facilities available.³⁻⁶ Our experience indicates that a team of vascular surgeons and neurosurgeons provide for optimum preoperative evaluation and selection of patients and insures a less fatiguing operation. Such a team is capable of providing postoperative care, followup, and management of any complications related to the operation or the underlying neurovascular problem.

There are two interesting and perplexing questions to be answered. What is the natural history of completely occluded internal carotid arteries? Will the majority of patients treated surgically remain symptom-free in the long term?

We believe that this surgery appears efficacious in appropriately selected patients and has the potential for modifying the natural history of extracranial cerebral vascular disease.

SUMMARY

Extracranial/intracranial bypass surgery was performed in eight patients with internal carotid artery occlusions and resultant symptoms. Our modification of the operative technique included preincision, doppler tracing of the superficial temporal artery and its donor branch, single incision, small craniectomy, and no bone coverage. The doppler sonographic method of determining bypass patency is described. There were no operative mortalities and no serious or lasting complications. After 12 to 20 months followup, all patients are alive and asymptomatic. The experiences of the authors parallel the experiences of large series reported elsewhere.

Extracranial/intracranial bypass is advocated for this problem as a safe and successful method of management.

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DESCRIPTION: Methyltestosterone is 17.6 Hydroxy-17-Methylandrost-4-en-3-one. ACTIONS: Methyltestosterone is an oil soluble androgenic hormone. IMDIC ARM of the state of the s

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's Contribution of the proster with known or suspected carcinoma of the proster and in carcinoma of the male breast Contraindicated in the presence of severe liver damage WARNINGS: If prajism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precorcious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. ADVERSE

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercateemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastateses • Schemale patients • Hypercatestivity of progression of the patients of th





Dr. I. David Weisband, of the Regional Orthopedic Professional Association, is one of a growing number of physicians who've found Minicom's Medical Practice Management System meets the unique needs of a medical practice.

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UNSURPASSED SERVICE

Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage

JOHN V. CHOLANKERIL, M.D., JESUS S. CENIZAL, M.D., RAFEUL HUDA, M.D., MICHAEL SANANMAN, M.D., BERNARD SCHANZER, M.D., Elizabeth*

Three adult patients with intracranial hemorrhage had typical angiographic pictures of moyamoya disease consisting of intracranial carotid artery occlusion associated with telangiectatic vessels in the region of the basal ganglia. In the female patient with neurofibromatosis, CT scanning showed hemorrhage in the right basal ganglia and lateral ventricle documenting, for the first time, intracerebral blood extending into the lateral ventricle in moyamoya disease. The other patients had subarachnoid hemorrhage.

n 1969, Suzuki and Takaku used the name moyamoya ("hazy like a puff of smoke drifting in the air") to describe a peculiar angiographic picture consisting of stenosis or occlusion of the internal carotid artery or its branches, accompanied by a network of telangiectatic vessels in the area of the basal ganglia.1 This disease occurs predominantly among Japanese people, although reports from other parts of Asia, the United States, Europe, and Australia document worldwide distribution.2-5 Since Tekeuchi reported this entity in 1961, some 600 Japanese case reports have been published. The majority of patients have been children with focal weakness or sensory disturbance, speech disorder, eye signs, headache, seizures, other involuntary movements, and, rarely, intracranial hemorrhage.7 Transient hemiplegia is the most frequent initial manifestation in children. However, intracranial hemorrhage is predominant in adults followed closely by motor paresis.2,7 The following report concerns three patients with moyamoya disease.

CASE 1

A 25-year-old black male from Bermuda was hospitalized in January, 1979, with sudden onset of headache and left hemiparesis. He had numerous admissions for sickle cell anemia that was first diagnosed at age 9. He had a few painful crises in 1977 and 1978. In 1978, he was hospitalized for streptococcus *Hemophilis* septicemia. During this stay he suddenly lost vision in the left eye due to a central retinal

artery occlusion. At that time his platelets were 1,198,000/mm3; hemoglobin 6.6; and white blood count 52,000. Hemoglobin electrophoresis showed Hgb A1 40%, A2 1%, and S 59%. Admission physical examination revealed nuchal rigidity, a grade III/VI systolic apical heart murmur, and moderate weakness with loss of pain and temperature sensation in the left limbs. Laboratory values were: Hgb 7.3, white blood count 25,000, platelets 729,000, and sickle cell preparation positive; prothrombin and partial thromboplastin time were normal. Lumbar puncture showed bloody fluid on two occasions. Chest x-ray showed cardiomegaly. Brain scan and CT scan of the brain were negative. Aortic arch and brachiocephalic vessels were normal. Right and left carotid arteriogram showed narrowing of the supraclinoid portion with occlusion of the anterior and middle cerebral arteries bilaterally and pseudoangiomatous vessels in the region of the basal ganglia filled through collaterals from ophthalmic, posterior choroidal, and transethmoidal meningeal vessels (Figure 1). Transdural meningeal collaterals from the cavernous portion of the internal carotid were seen communicating with the anterior cerebral artery. Right and left side showed similar findings. Posterior circulation was normal. The patient was treated with ster-

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Figure 1A—Lateral projection of right carotid arteriogram shows narrowing of the supraclinoid portion with occlusion of the origin of anterior and middle cerebral arteries. Network of telangiectatic vessels noted in the basal ganglia region (arrow). Transdural meningeal collateral (arrowhead) from the cavernous portion is seen communicating with the anterior cerebral (arrow with one cross). Transethmoidal meningeal collaterals also are seen (arrow with two crosses).

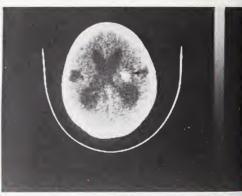


Figure 18—Lateral projection of the posterior circulation. Network of vessels in the region of the basal ganglia are filled through collaterals from the posterior choroidal vessels (arrows).

oids, analgesics, and ampicillin; he recovered within three weeks.

CASE 2

A 44-year-old Puerto Rican woman was hospitalized in January, 1980, because of sudden onset of left hemiplegia with severe headache and vomiting. She had mild hypertension for 11 years. Positive physical findings were blood pressure 210/140, pulse 80, slight nuchal rigidity, left hemiplegia with sensory loss, positive left Babinski reflex, and mild dysarthria. There were numerous cutaneous café au lait patches and a few subcutaneous nodules due to neurofibromatosis. Laboratory data showed normal SMA12, CBC, prothrombin, and partial thromboplastin time. Spinal tap showed bloody fluid on two occasions. CT scan of the brain (Figure 2) showed blood in the region of the basal ganglia and lateral ventricle on the right side. Right carotid arteriogram (Figure 3) showed narrowing of the supraclinoid portion of the internal carotid with occlusion of the origin of anterior and middle cerebral vessels and pseudoangiomatous formation in the region of the basal ganglia. External-internal transdural collaterals from superficial temporal artery were seen communicating with the anterior cerebral artery (Figure 3). Treatment included steroids, analgesics, and antihypertensive drugs. Only minimal improvement of the left hemiplegia was noted after several weeks so the patient was transferred to a long-term rehabilitation center.





Figures 2A and 2B—CT scan of the brain. Shows bleeding in the regional basal ganglia (arrowhead) and lateral ventricle (arrow) on the right side.





Figures 3A and 3B—Right carotid angiogram in lateral and rontal projection. Shows narrowing of the supraclinoid portion of internal carotid with occlusion of the origin of anterior and middle cerebral arteries. Network of telanglectatic vessels are seen in the basal ganglia (arrow), Collaterals are seen from ransethmoidal meningeal vessels (arrowhead) and from the avernous portion of the internal carotid (arrow with one cross). External internal transdural collaterals from superficial temporal artery (arrow with two crosses) communicating with anterior serebral artery also are seen.

CASE 3

A 50-year-old Cuban male was admitted to the hospital in July, 1979, for headache, neck pains, generalized body aches, and restlessness for six days. The patient had projectile vomiting, fever, and diarrhea on the day of admission. Past history and family history were noncontributory. He did not smoke or drink alcoholic beverages. Examination revealed: Temperature 101.2 F; pulse 80/min; blood pressure 140/80 mmHg; marked neck rigidity; and positive Kearning and Brudzinski signs. No local lateralizing signs were found: pupils were constricted. Spinal tap showed an opening pressure of 160 with bloody fluid in all the tubes and xanthochromia in the supernatent after centrifugation. Laboratory data revealed: CBC, sedimentation rate, SMA12. prothrombin time, partial thromboplastin time, antinuclear antibodies, and urinalysis were normal. Electrocardiogram, chest x-ray, and CT scan of the brain were unremarkable. Cerebral angiography showed slight narrowing of the supraclinoid portions of internal carotid with occlusion of the origin of anterior and middle cerebral and a vast network of vessels in the basal ganglia region. Collateral vessels were noted from ophthalmic, transdural meningeal vessels through the ethmoid, the middle meningeal artery, and the posterior choroidal vessels. The right and left circulation showed similar changes. The posterior circulation was normal with filling of middle cerebral vessels through the posterior communicating (Figure 4). Treatment was bedrest, steroids, and amicar. He improved over the next three weeks, was discharged on no medication, and is asymptomatic to

DISCUSSION

The etiology of moyamoya disease is unknown. Its predominance in the Japanese and its occurrence in siblings suggests a hereditary component. 2,4,8,9,10 Of special interest is the suggestion that a specific type of human leucocyte antigen was demonstrated in four patients with moyamoya disease, among them a father and two sons. 2,14 Many authors consider this entity to be a primary malformation of the blood vessels, since they found an association with other congenital abnormalities, such as aneurysms, uniform narrowing of the internal carotid artery, pseudoangiomatous pattern of the collaterals, and lack of progression of the disease.

Acquired forms of moyamoya disease may be associated with such diseases as autoimmune and connective tissue disorders, atherosclerosis, progressive myopathy, Hageman factor (factor XII) deficiency, pyruvate kinase deficiency, and infections. ^{2,3,4,15} Harwood-Nash et al. reported 40 cases of pediatric stroke of which 60 percent had a history of pharyngitis, tonsillitis, fever, or exanthema occurring a few weeks or months before the cerebrovascular disease appeared. ¹² There is a high association of moyamoya disease with sickle cell disease ¹⁶ and neurofibromatosis. Of our patients, Case 1 had sickle cell anemia and Case 2 had neurofibromatosis. Increased incidence of moyamoya disease has been reported following radiation therapy to the brain. ¹⁷ Oral contraceptives also have been blamed as a possible cause. ¹³

Nishimoto and Takeuchi stated that the majority of patients were remittent and divided this group into recovering, unchanging, or recurring. Most of their patients in the younger age group showed sudden onset of hemiparesis and recovered quickly only to have the findings reappear on the





Figure 4—Frontal and lateral projections of right carotid angiogram. Shows occlusion of the anterior and middle cerebral arteries. Visualization of the posterior cerebral artery noted through posterior communicating. Network of telangiectatic vessels noted in the basal ganglia region (arrow). Collaterals are seen through transdural ethmoid vessels (arrowhead). Middle meningeal vessel collaterals are seen communicating with anterior and middle cerebral vessels (arrow with one cross) in a retrograde fashion.

same or opposite side. Most of the adult patients recovered, remained unchanged, or had a recurrence. Few children and adults progressively became worse and died. A few patients showed progressive worsening of the arteriographic picture, consisting of progressive narrowing of the supraclinoid portion of the internal carotid and stenosis or occlusion of the trifurcation of the internal carotid distal to the origin of the ophthalmic artery in a bilateral fashion. With progression, arterial collaterals develop within the following

arterial territories: the anterior or posterior choroidals; basilar and its branches; meningeal arteries through the dura (internal transdural); other meningeal arteries (transethmoidal); and external carotid branches through the bone. both in the cranial vault and the base (external-internal transdural communications).2,4,7,19 A large network of small vessels is present in the region of the basal ganglia. The main source of collateral supply are the ophthalmic, middle meningeal, and posterior choroidal vessels. The posterior circulation and circle of Willis in these cases usually are not affected.4 Some authors think that the acquired forms of moyamoya disease as in sickle cell anemia, hemolytic anemia, or pyruvate kinase deficiency, the movamova pattern develops secondary to occlusion of vessels in the circle of Willis.2 The pathological findings are not uniform in these cases. However, nearly all reports show abnormal excessively infolded and thickened or intermittently absent intima with no significant change in the media or adventitia and no inflammatory changes.2,4,7

Kodama and Suzuki¹⁸ reported three cases of moyamoya disease with pseudoaneurysm at the peripheral portion of the posterior choroidal artery. Each aneurysm was located in the brain tissue around the upper lateral edge of the lateral ventricle. Most of these aneurysms disappeared in followup angiograms. They concluded that a small artery may rupture in the region of the basal ganglia near the lateral ventricle and the blood penetrates into the lateral ventricle leaving behind a small clot or pseudoaneurysm. This may result in misinterpretation of the patient's signs and symptoms as being due to subarachnoid hemorrhage.¹⁸ Case 2 showed blood in the basal ganglia and lateral ventricle, supporting Kodama and Suzuki's suggestion.¹⁸ To our knowledge, this is the first case in the literature demonstrating hemorrhage in the basal ganglia with extension into the lateral ventricle.

SUMMARY

Three adult patients, a Bermudan black male with sickle cell disease, a Puerto Rican female with neurofibromatosis, and a previously well Cuban male, developed intracranial hemorrhage. Cases 1 and 2 acquired moyamoya disease in view of their associated diseases (sickle cell and neurofibromatosis). CT scanning in Cases 1 and 3 did not demonstrate hemorrhage probably due to small amount of subarachnoid bleeding (that had been documented by repeat spinal taps). Case 2 showed blood in the basal ganglia and lateral ventricle on the right side. Adults with moyamoya disease usually develop intracranial hemorrhage. It is believed that the subarachnoid hemorrhage is caused by rupture of the transdural collateral vessel (rete mirabile) in the subarachnoid space.^{3,7}

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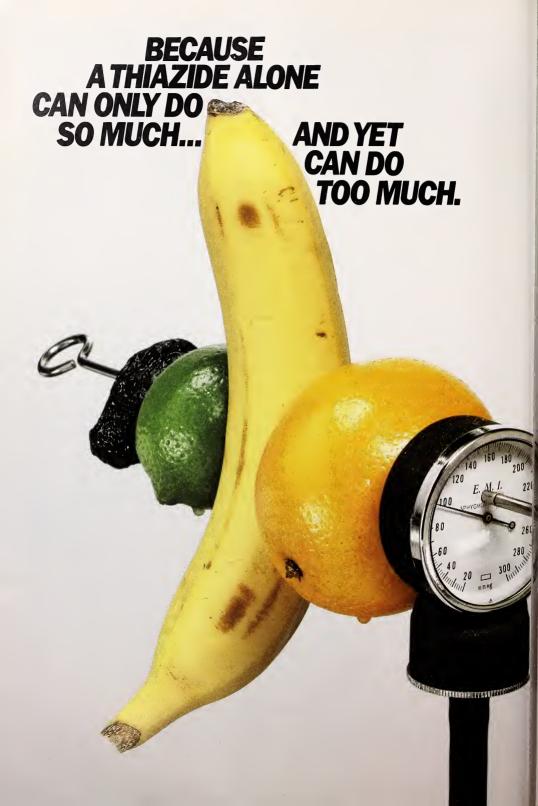
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FOR TOLL PRESCRIPTION IN CONTROL OF THE CONTROL OF

40 mg 25 mg 80 ma

WARNING: This fixed combination drug is not indicated for initial therapy of hypertension. Hypertension requires therapy titrated to the individual patient. If the fixed combination is the fixed combination of the fixed c nation represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension is not static, but must be reevaluated as conditions in each patient warrant

DESCRIPTION: INDERIDE combines two antihypertensive agents. INDERAL (propranolol hydrochloride), a beta-adrenergic blocking agent, and hydrochlorothiazide, a thiazide. antihynertensive

INDICATION: INDERIDE is indicated in the management of hypertension. (See boxed warn-

CONTRAINDICATIONS: Propranolol hydrochloride (INDERAL "): Propranolol hydrochlo-nde is contraindicated in 1) bronchial ashma; 2) allergic rhinitis during the pollen season. 3) smus bradycardia and greater than first degree block, 4) cardiogenic shock. 5) right venof stillage stady-datid and ingleater manish degree or block. Pycathorial stadies of principles in tricular failure secondary to pulmonary hypertension, 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tacky-darythyrithmia treatable with proprianolic. 7) in patients on adrenergic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs. Hydrochlorothaizatile: Hydrochlorothaizatile: hydrochlorothaizatile: hydrochlorothaizatile: sontraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS: Progression by Madrochloride (INDERAL**) CARDIAC FAIL LIBE: Sympathetic

persensitivity to this or other sulfonamide-derived drugs WARNINGS: Propranolol hydrochloride (INDERAL*): CARDIAC FAILURE. Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta blockade always carries the potential hazard of turther depressing myocardial contractifity and precipitating cardiac failure. Propranolol acts selectively with-out abolishing the inortopic action of digitalism on the heart muscle (e. e. that of supporting the strength of myocardial contractions). In patients already receiving digitals, the positive more ropic action of digitals may be reduced by programolol 5 hegalive motion positive mo-torial proprays the program of the pr

the myocardium over a period of time can, in some cases, lead to cardiac failure. In rare inthe myocardium over a period of time can, in some cases, lead to cardiac failure. In rare in-stances, this has been observed during proprianoic therapy. Therefore, at the first sign or symptom of impending cardiac failure, patients should be fully digitalized and/or given a di-uretic, and the response observed closely a) if cardiac failure continues, despite adequate digitalization and diuvetic therapy, propranoid therapy should be immediately withdrawn; b) if tachyarnythmia is being controlled, patients should be maintained on combined therapy and the patient closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of IN PAILENTS WITH ANOTINE FEOR INTO IS, there in a we been reports of exacerbation of anging and, in some cases, myocardial infarction, following abrupt discontinuation of propranolol therapy. Therefore, when discontinuance of propranolol is planned the dos-age should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for anging pectors, the patient should be cautioned against. interruption or cessation of therapy without the physician's advice. If propranolof therapy is interrupted and exacerbation of angina occurs, Itusually is advisable to renstitute propranoiol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given propranolol for other indications.

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use have not been adequately appraised Special consideration should be given to propranoils potential for aggravating congestive heart failure. Propranoilol may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propranoilol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing propranoilol slowly Progranoilol does not distort thyroid function tests. IN PATIENTS WITH WOLEF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranoilol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranoilol.

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the IN PATIENTS UNDERGOING WAS ADDASSHED BY BELL DURAGE IN IPPAIR IN PATIENTS OF THE ADMINISTRATION OF THE PATIENT SUPPAIR ADMINISTRATION OF THE PATIENT OF THE

starting and maintaining the heart beat has also been reported IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-CHITIS, EMPHYSEMA), propranolol should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of

beta receptors
DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its beta

adrenergic blocking activity, propranolol may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially important to keep in mind in patients with labile diabetes. Hypoglycemic attacks may be ac-

companied by a precipitous elevation of blood pressure Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease. In pa-tients with renal disease, thiazides may precipitate azolemia. In patients with impaired renal

function, cumulative effects of the drug may develop
Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may pre-

progressive liver classes, since from a deterior of hinds and excellence for the control of the

USE IN PREGNANCY: Propranolol hydrochloride (INDERAL "): The safe use of propranoiol in human pregnancy has not be denestablished. Use of any drug in pregnancy or women of a highest present and/or fetus be weighed against the expectate the applicabilities the possible risk to mother and/or fetus be weighed against the expectate the applicabilities the properties of the control of animal studies at doses about 10 times the maximum recommended human dose. **Hydrochlorothizadies:** This acides cross the placental barrier and appear in cord blood. The use of this acides in pregnant women requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocy-

Openia, and possibly other adverse reactions which have occurred in the adult.

Nursing Mothers: Thiazides appear in breast milk. If the use of the drug is deemed essential, the palient should stop nursing.

tial, the patient should stop nursing PRECAUTIONS: Propranolol hydrochloride (INDERAL*): Patients receiving catechol-amine-depleting drugs such as reserpine should be closely observed if propranolol is ad-ministered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharma-clogic activity of propranolol may produce hypotension and/or marked bradycardia result-ing in vertigo, syncopal attacks, or orthostatic hypotension. As with any new drug given over prolonged periods, laboratory parameters should be ob-served at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function.

Hydrochlorothlazide: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals

all patents receiving that de therapy should be observed for clinical signs of fluid or all patents receiving that de therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely hyponatremia, hypochloremic alkalosis, and hypokalemia Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also in-fluence serum electrolytes. Warning signs, irrespective of cause are dryness of mouth thirst, weakness, lethargy, drowsness, restlessness, muscle paner or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting

Hypokalemia may develop, especially with brisk diuresis, who present or during concomitant use of corticosteroids or ACTH.

In the control of the control of

hen severe cirrhosis is

Interference with adequate oral electroyle intake will also contribute to hypokalemia. Hy-pokalemia can sensitize or exaggerate the response of the heart to the toxic effects of digi-talis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements such as foods with a high potassium content. Any chloride deficit is generally mild, and usually does not require specific treatment ex-cept under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatre-mia management and demonstrate had the authors as the authors are the sent to the content of the properties of the content of the c

mia may occur in edematous patients in hot weather, appropriate therapy is water restric-tion, rather than administration of salt, except in rare instances when the hyponatrema is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving

thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administra-

tion
Thiazide drugs may increase the responsiveness to tubocurarine
The antihypertensive effects of the drug may be enhanced in the postsympathectomy patient. Thiazides may decrease arenal responsiveness to noreprine this diminution is
not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy
Thiazides may decrease serum PBI levels without signs of thyroid disturbance

Thiszides may decrease serum PBI levels without signs of thyroid disturbance. Calcium excretion is decreased by thiszides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiszide therapy. The common complications of hyperparathyroidism such as renal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiszides should be discontinued before carrying out tests for parathyroid function.

ADVERSE REACTIONS: Propranoiol hydrochloride (INDERAL*): Cardiovascular: bradycardia. congestive heart failure, interstication of Ab Ubeck. Hypotension, paresthesia of hands, arterial insufficiency, usually of the Raymaud type, thrombocytopenic purpura alsostude, weakness fatigue; teversible mental depression progressing to catationa, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestrain nausea, vomiting, epigastric distress, abdominal cramping, diarrhea,

and decreased performance on neuropsychometrics.

Gastrointestrual nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesentence arterial thrombosis, ischemic colitis.

Allergic pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory bronchospasm, and respiratory distress.

Respiratory bronchospasm, sonitoriomobocytopenic purpura, thrombocytopenic purpura, and solvential constitution of the constitu

Clinical Laboratory Test Findings. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase. Hydrochlorothiazide: Gastrointestinal, anorexia, gastric irritation, nausea, vomiting. cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis,

alademilis. C*entral Nervous System.* dizziness, verligo, paresthesias, headache, xanthopsia Hemafologic: leukopenia, agranulocytosis, frombocytopenia, aplastic anemia C*ardiovascular.* orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis), fever, respiratory distress including pneumonitis anaphylactic reaction Other, hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restless-ness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced

or therapy withdrawn DOSAGE AND ADMINISTRATION: The dosage must be determined by individual titration

DOSAGE AND ADMINISTRATION: The dosage must be determined by individual titration (see boxed warning).
Hydrochlorothiazide is usually given at a dose of 50 to 100 mg per day. The initial dose of progranoiol is 40 mg twice daily and it may be increased gradually until optimum blood pressure control is achieved. The usual effective dose is 160 to 480 mg per day. One to two INDERIDIC tablets twice daily can be used to administer up to 320 mg of progranoiol and 100 mg of hydrochlorothiazide. For doses of progranoiol greater than 320 mg, the combination products are not appropriate because their use would lead to an excessive dose of the thiazide component.

When necessary, another antihypertensive agent may be added gradually beginning with

50 percent of the usual recommended starting dose to avoid an excessive fall in blood

OVERDOSAGE OR EXAGGERATED RESPONSE: The proprancial hydrochloride (INDERAL) component may cause bradycardia, cardiac failure, hypotension, or broncho-

The hydrochlorothiazide component can be expected to cause diuresis. Lethargy of In mysuconoromiazue component can de expected to cause diuresis. Lethargy of varying degree may appear and may progress to coma within a few hours, with minimal depression of respiration and cardiovascular function, and in the absence of significant serum detectivity to changes or dehydration. The mechanism of central nervous system depression with thiazide overdosage is unknown. Gastromestinal irritation and hypermotity can occur temporary elevation of BUN has been reported, and serum electrolyte changes could occur, especially in patients with impairment of the most of the proposage of the pr

TREATMENT: The following measures should be employed. GENEHAL—I Ingestion is, or may have been recent, evacuate gastric contents faxing care to prevent pulmonary application. BRADVCARDIA—Administer atopine (0.25 to 1.0 mg). If there is no response to vagal blockade, administer soproterend cautiously. CARDIAC PAILLINE:—Digitalization and discusses the POTENSION—Assophessors, e.g., levated PAILLINE:—Digitalization and discusses the POTENSION—Assophessors, e.g., levated potentialization and discusses the potential production of the production of the

ance, respiration, and cardiovascular-renal function
HOW SUPPLIED: No. 474 — Each INDERIDE* 40/25 tablet contains 40 mg proprianolol hydrochlonde (INDERAL*) and 25 mg hydrochloridhizaide, in bottles of 100 and 1,000. Also in

unit dose package of 100 mg hydrocharchas 80 mg propranolol hydrochoride (NDERAL) and 25 mg hydrochorohazide, in bottles of 100 and 1,000. Also in unit dose package of 100

References: 1. Veterans Administration Cooperative Study Group on Antihypertensive Agents J A M A 237 2303 (May 23) 1977 2 Bravo, E L., Tarazi, R C., and Dustan, H P. N. Engl. J. Med. 292 66 (Jan. 9) 1975 3. Hollinteld, J W. and Slaton, P.E. Acta Med. Scand (Suppl.) 647 67, 1981. 4. Holland, O. B., Nixon, J V., and Kuhnert, L. Am. J. Med. 70 762 (Apr.) 1981.



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The Child in Sports*

WILLIAM J. FARLEY, M.D., Brielle

An overview of organized sports programs for children is presented to emphasize possible psychological hazards and social implications. The preparticipation physical assessment should stress the adaptation of the child for the sport selected. Individual and group counseling of coaches, parents, and players will assist in better management. A series of axioms point out certain myths, misconceptions, and areas of controversy concerning competitive athletics for boys and girls.

Interest in sports medicine has mushroomed in the past few decades. Seminars, specialty clinics, and foundations have been established. Much of the fervor has been associated with the care and prevention of injuries and the recommendations for the management of those with physical disability and chronic illness. Studies mainly have involved the high school, college, and professional athlete. However, with the increase in the participation of young children in community-organized sports programs, data and experience with this age group are accumulating. It has been estimated that over 17 million children, aged 6 to 16, and 2.5 million coaches are involved in nonschool-related sports programs in this country; with the increasing participation of girls, many more will be involved.

This paper will not include a discussion of "Little League elbow," heat exhaustion, the absent paired organ, or other physical aspects of sports, for most of these problems have been investigated. I will look mainly at what may be a more worrisome aspect in which there has been very little factual information: the effects of highly organized sports activity on our children.

We are told that a program of regular physical activity and exercise for adults is biologically sound, will assist in reducing the rising morbidity and mortality from cardiovascular disease, and will provide leisure time pursuits for a longer, more enjoyable, and healthier lifetime.^{3,4,5} The behavioral scientist has suggested that a positive early childhood ex-

perience in sports will encourage this desirable activity in adulthood.

The urge for physical prowess is inherent in the human animal. An appreciation of coordinated bodily movement begins in infancy with the gleeful pleasure and excitement of the acquisition of each new motor and adaptive skill. This inborn and inexorable maturational drive is accompanied by emotional, cognitive, and social growth. It propels the child into the neighborhood streets, sandlots, and playgrounds; into the formal physical education and athletic teams of school; and into organized sports programs in the community.

Many dream of making the all-star team, of being a highly paid outfielder for the Yankees, or of soaring through the air in a graceful symphony of motion to make a backhanded dunk like a Dr. J; few attain such goals. Television has brought the sports hero into every living room from Channel 2 to 52, on NBC to ESN.

We need to impress upon a child that after the glamour

^{*}Presented at a seminar on the preparticipation examination of the school athlete, sponsored by the Committee on the Medical Aspects of School Sports, Medical Society of New Jersey, Lawrenceville, NJ, April 23, 1980; and presented at the regional meeting, Ambulatory Pediatric Association, Philadelphia, PA, January 23, 1981. Dr. Farley is a practicing pediatrician, former New Jersey Chapter Chairman of the American Academy of Pediatrics, and past Chairman of the Committee on Child Health, Medical Society of New Jersey. Correspondence may be addressed to Dr. Farley, 834 William Drive, Brielle, NJ 08730.

and hoopla there is a personal gain and need to maintain one's physical fitness as an adult. How can we instill this desire in a child, so that the child will not settle down to a role as a spectator? Yet, what are the benefits and hazards of organized sports for the young? Are there psychological and social implications that we must address in this regimentation of our children?

One certainly needs to take a hard look at these questions and to examine this important area of child development.

PREPARTICIPATION HEALTH APPRAISAL OF THE YOUNG ATHLETE

The basic elements in the evaluation of a child who needs a sports physical are outlined in Table 1. This assessment is done best by the child's personal physician who possesses a knowledge of the child's medical problems and family background. The traditional examination of the average candidate usually is "negative" in terms of general health status. The team or school physician, with a broader interest and expertise in sports medicine, also may screen the candidates. The most important consideration is to assess the type of body structure, maturity, and adaptation for the type of sport selected. Chronological age is the most convenient and frequently used classification for enrollment, but it may be the least appropriate. Attitudes and motivations of the parents and the child should be explored. Guidance and direction should be provided toward a more enjoyable and successful experience that is commensurate with a child's

"Sports teams of any type and age level provide excellent educational opportunities to prepare children with a good foundation for a lifetime of participation in athletics and physical activity."

physical aptitudes at any given age. The normal variation of genetically determined stature and timetable of bodily change, especially through puberty, should be recognized in each child. This difference is conspicuous to the endocrinologist. One boy has been described as 90 pounds of baby fat and peach fuzz, and another as 225 pounds of muscle and mustache. Each one is 13 years old and trying out for the same football team.

COUNSELING

Sports teams of any type and age level provide excellent educational opportunities to prepare children with a good foundation for a lifetime of participation in athletics and physical activity.9.10 A sports team is a highly motivated group with which a physician can establish a good rapport and can offer beneficial counseling. Appropriate aspects of health education can be included. An outline of subject matter is suggested in Table 2. Coaches and parents can gain much from group sessions aimed toward more adequate training and understanding of the physical and emotional development of children, and better psychological and behavorial management of the young athlete.

AXIOMS

The following axioms will serve to initiate a discussion of

TABLE 1

Preparticipation Appraisal of the Young Athlete

Personal Physician and/or Team Physician History—Past or Current Illnesses and Injury Physical Assessment

Traditional "Physical"

Sex, Age, Percentile—Height and Weight Body Habitus, Muscle Mass, Strength

Joint Function, Coordination

Maturity Level—Secondary Sex Characteristics

Fitness
Type of Sport—Selection

Attitude-Parent and Child

Counseling-Individual/Group

TABLE 2

Counseling for Players, Coaches, and Parents

Anatomy and Physiology—Muscles, joints, bones, cardiovascular system

Growth and Maturation—Individual differences

Conditioning—Flexibility, power, endurance

Emergency Care and First Aid

Mechanism, Prevention, and Rehabilitation of Injury— Incidence, forces, leverage, fatigue, healing process Equipment and Safeguards—Proper use and misuse Health Education—Nutrition, hygiene, social habits,

smoking, drugs, menstruation, sexual activity Behavior and Psychological Management

children in sports. Some are based on statistical study, some on observation and reason, and others are meant to be provocative. If any touch a sensitive chord, then they were worth saving.

Health supervision of all children should include encouragement in physical exercise. Each periodic child-health conference should include an inquiry as to the form of physical exercise a child is getting.

The most beneficial physical activities for young children are those incorporated into family life with participation of parents and siblings. The family that plays together stays together. Physical activity with laughter and bodily contact promotes family cohesiveness. Free-for-all game sports without much instruction provide exercise with enjoyment and relaxation. Hiking, cycling, jogging, camping, and fishing make good family outings.

Prepubescent boys and girls physically are alike and deserve similar opportunities in sports. Stereotyped roles for boys and girls mainly have been cultural and psychosocial.

Girls receive the same biological benefits as boys. Fitness should not be a male monopoly; fitness does not make a female less feminine or less appealing. Myths concerning female athletes are being dispelled. Previous prohibitions concerning body structure, menstruation, and childbearing are not tenable. However, postpubertal differences in the ratio of lean body weight to adipose tissue and in muscle mass to bone density do not permit fair competition of older boys against older girls. 12

Young children have few sports injuries, including epiphyseal injuries. It has been well documented that young children infrequently are hurt, even in contact sports; minimal forces of weight, strength, and speed are protective. Girls are not more injury-prone.

Children matched against their physiological peers have fewer injuries. Programs that have utilized the level of maturity (pubic hair, menarche) for types of sports rather than age have been promising and may reduce the incidence of injury even more.¹³

Sports for the young primarily should emphasize instruction for future participation. It should be a learning experience to enhance personal performance, to develop individual skill, and to understand the fundamentals of play.

Early practice periods are the most productive, most enjoyable, and well attended. Before attrition (due to differences in comparative ability, disinterest, withdrawal, and cuts) is recognized, everybody plays.

The team selection process can be destructive. The stressful experience of not making the team is said by some research psychologists to be a highly traumatic event in the life of a child.^{14,15}

Candidates with good future potential can be turned off to sports. One may be unable to predict how the developmentally poorly coordinated child, the nonathletic type (ecto or endomorphic), or the late maturer ultimately will perform in any given sport; a negative early experience and failure may influence the future participation in physical activity.

A child would prefer to be a player on a losing squad than a nonplayer on a championship team. The good-natured benchwarmer cheering a team on may not be as happy as he or she seems. Rules to give equal time to all may not be pursued.

Concentration on the more physically gifted or talented is unfair and detrimental to all. The fine honing and disproportionate time spent with the team standouts may be at the expense of the "lightweights." ¹⁶ Those early maturers attaining quick success and adulation psychologically may be unable to handle the leadership role thrust upon them. ¹⁷ Frustration and dropouts may occur when the late bloomers catch up biologically. The few child "phenoms" who become Roger Staubachs are not the rule.

The handicapped child should be sought and given special consideration and attention. Adapted programs of physical education in school as well as in community projects such as the Special Olympics should be fostered. No child should be deprived of the enjoyment of suitable sports and exercise.¹⁸

Children are "programmed" too early in highly organized sports. The time and opportunity for the free play of small children should not be curtailed. With a decline in participation in some sports such as football in favor of those with less equipment, expense, and fanfare, such as soccer, there is some indication that kids may be fed up.

Children are not intensely competitive. Competitiveness is not an instinct native to the young animal; rather, it is a learned conditioned response to adult social pressures and role models. The "Lombardian ethic" or "win-at-all-cost syndrome" can be destructive unless controlled. Lack of control may permit violence.

Self-governing free play in unstructured sports activity permits better socialization, peer relationships, initiative, leadership, and more fun. Devereau aptly has said "Backyard sport has the following characteristics: fun; small-in-scale; minimal risks; freedom; spontaneity; self-pacing; continual and relevant feedback; recognition of individual differences in physical and social skills; minimal evaluation; the ability to handle poor sports, cry babies, little kids, and girls; a winner is not always determined; and the game can begin and end at any ime."

Supervised athletics are beneficial for those with sedentary or undesirable social habits, disinterest, or unsupportive family lies. Free play should not include stealing from the local supermarket, gang fights, or playing craps in an alley. An

interested coach, athletic instructor, or "big brother" can have a lasting and even lifesaving influence over a young child. The overprotected, the loners, the obese, and the television viewers require a much-needed boost.

Community programs and facilities should be created in underprivileged areas without adequate opportunities for physical activity. The Ys, Boy's Clubs, Scouts, and similar worthwhile organizations must be supported. They provide year-round, well-rounded, and supervised activities with trained personnel.

Adult supervisors, with some understanding and empathy, should be selected to deal with the physical and emotional needs of growing children. This admittedly is a big order; and many coaches are needed. Unfortunately, some willing volunteers are perennial jocks who never made it and get a vicarious thrill from a winning performance by the children. Frequently, well-meaning but ill-prepared parents are pressed into service. Group counseling, as previously described, can be helpful in setting ground rules for proper conduct for parents and coaches.

Scholastic achievement should be stressed and should receive equal status with athletic prowess. Coaches who are "looked up to"can encourage healthy attitudes toward schoolwork. They should communicate with teachers as necessary and emphasize the need of education for complete growth and future goals. Athletes should be aware early that scholarships to better colleges are awarded to those with good grades. Special concessions for the athlete (easy grades and courses and excused and poor class attendance) so prevalent in institutions of higher learning must be condemned at every

"The evaluation of a child who needs a sports physical is done best by the child's personal physician."

academic level. Black sociologists have voiced concern for the disproportionate number and interest of black youths in sports rather than in other fields of endeavor and professions. They are disturbed by the impact of the role models set by the relatively few highly paid professional black athletes

Parental discipline, authority, and family unity never should be compromised. A disruption of family life occurs when practice and game schedules must be met. Meals apart, chauffeuring at all hours, cancelled dental appointments, and family gatherings are the order-of-the-day. Emotional scenes are commonplace when illness or minor injury prevent playing. The most sturdy parents find such pressures difficult to handle. The demanding coach can make decisions more difficult.

All-star contests, postseason games, commercialism, improper fundraising, elaborate awards, and ceremonies should be abolished. Substantial community money to send the talented few on the all-star 8th grade football team on a 1,000-mile jaunt to Texas better can be spent at home. Monetary support by merchants need not require a child to become a walking billboard. After the honors and banquet circuit is over, what more is left for a 12 year old?

Relegate highly competitive sports activity to older age groups. A controversial ban on competitive sports prior to adolescence has been recommended by concerned physicians. Even at the senior high school level, adequate control still is needed for a balanced educational program.

Competitive athletics with proper goals and supervision can foster recognizable benefits. These include: physical and mental toughness; personal sacrifice in a cooperative effort; learning to cope under stress and pressure; meaningful and enduring personal relationships and exciting and affectionate memories; a sense of belonging to a group experience; and a healthful foundation for a more productive life.

The essential "game plan" is the optimal physical, emotional, and social development of each individual child or adolescent. If one's performance is recognized, accepted, and judged adequate and worthy, then the experience will be a positive one.

The physician should accept the role of child advocate for improved sports activity for children. Medical schools and residency programs must alert the physician-in-training of this important aspect of child development and community medicine.¹⁹

CONCLUSION

Motivation for this paper came from the experience and pleasure of a lifetime of physical activity in a wide variety of individual and team sports as child and adult, player, coach, trainer, educator, school and team physician, league organizer, hot-dog vendor, and parent. It came from participation at all levels of play from kick-the-can to professional competition, from the tranquility of the swimming hole in Scout's Hollow to the pandemonium of Madison Square Garden.

All children deserve a "fair shake." Physicians have a chance to support a child's working existence in the classroom and later as an adult in the daily business of making a living along with the revitalizing influence and sustaining "high" of physical recreation. Fitness nourishes an active and productive mind. Exercise is potent, over-the-counter medicine for tension headache, insomnia, over-weight, gout, osteoarthritis, early senility, and bad temper.

Ardent enthusiasm for any sport must not prevent a child's exposure to other worthwhile activities, for the sake of a more balanced lifestyle. One cannot overlook the exhilarating benefits of the visual arts, music, and dance in providing additional nurturing of a healthy personality. A fine athletic performance may be considered an art form; the gymnast and ballerina have much in common. Music provides an exciting accompaniment for the figure skater.

Finally, one cannot suggest that there are easy answers to the rather global issues questioned. This presentation was written not to denigrate the conscientious efforts of those involved in organized sports for children, but to bring present programs into perspective to meet the needs of future generations of American citizens.

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sleep la-ten-cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af-ter sleep on-set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to-tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.¹

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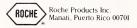
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Survival Among Patients with Lung Cancer

B.H. SAFIRSTEIN, M.D., J. GOLDSHLACK, D.O., R.F. SARAMA, M.D., Newark*

Three hundred eleven patients with primary carcinoma of the lung were evaluated. We compared lung cancer data from a New Jersey community hospital to national lung cancer statistics. We have attempted to determine whether anatomic staging utilizing the TNM classification provides useful information concerning survival.

ospital records were reviewed for all inpatients and outpatients whose cases were entered in the tumor registry of The Mountainside Hospital, Montclair, NJ, from January 1, 1974, to September 30, 1979, with the diagnosis of primary carcinoma of the lung. Age, sex, occupation, smoking history, and initial complaints were tabulated. Methods and success rates of all diagnostic procedures were collected. All radionuclide scans, serum alkaline phosphatase, and serum calcium determinations were tabulated. Initial anatomic staging using the TNM system was accomplished by the authors reviewing all initial chest radiographs and surgical and pathological reports.¹⁻³ Survival was determined from the date the diagnosis of lung cancer was established.

The diagnosis of carcinoma of the lung was made by tissue examination in 287 of the 311 cases. In the remaining 24 cases, the diagnosis of carcinoma was made clinically by demonstrating enlarging parenchymal lung lesions, associated with metastasis demonstrated by radionuclide scanning.

RESULTS

Two hundred three patients were male and 108 patients were female. Patients in the seventh decade most commonly were afflicted. Of the 287 histologically diagnosed tumors, 96 tumors were squamous cell, 66 tumors were adenocarcinoma, 62 tumors were small cell, and 32 tumors were large cell carcinomas (Table 1). Two hundred sixty-five patients

were smokers, 32 patients were nonsmokers, and there was no known smoking history in 14 patients.

Patients most commonly had cough, hemoptysis, dyspnea, localized pain, and abnormal routine chest x-ray (Table 2).

Eighty-four percent of patients with lung cancer were radiographic stage III when first seen; 3 percent were stage II; and 12 percent were stage I.

Fiberoptic bronchoscopy was positive in 65 patients, while rigid bronchoscopy was positive in only 16 patients. Mediastinoscopy was successful in 11 of 28 cases; peripheral node biopsy was performed in 25 of 31 cases, and open biopsy in 107 cases. Transthoracic needle biopsy was positive in 17 of 19 cases, while biopsies of other organs were positive in 21 of 27 cases. Confirmatory diagnosis was made at necropsy in 18 cases. Sputum cytology was positive in 3 cases and no tissue was obtained in 23 cases.

Bone scans were performed in 163 patients and were abnormal (consistent with metastatic tumor) in 62 patients. Thirty-two of the 62 cases that were positive occurred in patients with stage III tumors. Forty-nine patients with positive bone scans had elevated serum calcium, elevated alkaline phosphatase, bone pain, or a combination of these.

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	T	ABLE 1	
Type of Tumor	Mean Age	Number of Patients	Percentage of Patients with Tissue
Squamous cell	61	96	33.4
Adenocarcinoma	61	66	23.0
Alveolar cell	70	5	1.7
Large cell	63	32	11.1
Small cell	62	62	21.6
Undifferentiated	63	26	9.1

Six patients with positive bone scans had none of these findings. Liver scans were performed in 144 cases and were consistent with metastatic tumor in 37 cases. All 37 cases were radiographic stage III disease.

Brain scans were performed in 113 cases and were abnormal, showing a discrete mass density, in 35 cases. All positives occurred in patients with stage III disease.

Patients were followed for a period of three to eight years after a diagnosis of lung cancer was ascertained. Table 3 shows survival at the end of 1981. Seventeen patients survived. Fifteen of the 17 patients were asymptomatic and discovered following a routine chest radiograph. Of the 294 patients who died during the observed period, 274 died directly as a result of lung cancer.

THE SURVIVORS

There were 17 survivors (Table 4). Fifteen patients initially were classified as stage I. Two of 17 survivors originally were classified as stage III and they were alive, 36 and 38 months, respectively, from the date of initial diagnosis. Of the 15 survivors, 9 are alive greater than five years, 3 are alive for four years, and 3 are alive three years after diagnosis.

There were 12 females and 5 males in the survival group. All 17 survivors were smokers and were free of pulmonary symptoms at the outset of their illness. All patients in stage I underwent thoracotomy with lobectomy, except one patient who had pneumonectomy. The lesions were in the upper lobes in 11 instances. Adenocarcinoma was present in 10 cases, 4 cases were squamous carcinoma, 1 case was undifferentiated, and 2 cases were classified as oat cell carcinoma. The average age of all survivors was 62 years.

THE NONSURVIVORS

Two hundred ninety-four patients died. Twenty-one patients, initially classified as stage I, died of lung cancer. All

TABLE 2					
Presenting Complaints*					
Presenting Complaint	Number	Percent			
Cough	137	34.0			
Hemoptysis	44	10.9			
Dyspnea	40	9.9			
Localized pain nonchest	37	8.9			
Chest x-ray	36	8.9			
Chest pain	28	6.9			
Neurogenic abnormality	24	6.0			
Unresolved primary infiltrate	10	2.5			
Hoarse voice	10	2.5			
Lump in neck	9	2.2			
Superior vena cava syndrome	7	1.7			
Headache	5	1.2			
Fatigue	3	1.0			
Leg edema	2	0.5			
Skin lesion	2	0.5			
Weight loss	2	0.5			
Weakness—unknown	7	1.7			
*More than one may be present in a given patient.					

underwent thoracotomy and resection. By 24 months, 12 of the 21 patients with stage I disease died of their cancer. An additional 11 patients died after 36 months. Of these, 18 patients died of other medical illnesses, such as heart disease, stroke, and respiratory insufficiency. There was no significant difference in cell type or location among survivors or nonsurvivors in stage I. The average age of the nonsurvivors was 69 years. Of the 273 patients in stage II and III, 269 patients died; 129 patients died within 6 months. One hundred forty-six patients underwent thoracotomy with lobectomy or pneumonectomy. Radiotherapy was given to 255 of the nonsurvivors, while chemotherapy was given to 202 patients. There appeared no significant difference in survival between any of the therapy groups.

DISCUSSION

The method of compilation of this series makes it difficult to compare the results with previous studies. However, the statistics reflect the grave prognosis of lung cancer and suggest that little has changed despite increasing technological advances in radiotherapy and surgery. The five-year survival rate was 5 percent in a series of 2,200 patients with lung cancer reported by Zeidler et al. from Heidelberg University in 1968.4 Bignall reported that among 5,140 patients seen at Brompton Hospital from 1955 to 1963, fiveyear survival was 7 percent.5 Inberg reported that in Finland from 1952 to 1970, the five-year survival rate was 7 percent.6 Huhti et al. reported that the survival rate among 446 patients with lung cancer seen at a community hospital from 1968 to 1971 was only 4 percent.7 Cohen et al. reported only 12 survivors for 417 cases seen at a Jersey City institution from 1939 to 1963.8 The five-year survival rate of 5 percent reported in our series most resembles the unselected series reported by Huhti from Finland. Also, our results reflect the rising incidence of lung cancer seen in women smokers. As in previously reported studies, our series reports the increasing incidence of adenocarcinoma.9

The most significant factor for survival was the clinical and anatomic stage of the disease at the time of presentation. Asymptomatic patients with stage I lung cancers are the vast majority of survivors. Feinstein proposed a clinical staging system based upon symptoms. He found a 32 percent, five-year survival rate in patients with clinical stage I lung cancer. Our findings are similar: 15 of 36 patients (42 percent) with clinical and anatomic stage I lung cancer survived four or more years. It is worth emphasizing that survival in our series was not age related, for patients in their 70s and 80s were helped surgically.

The dismal outlook for oat cell carcinoma has been well documented. 11-14 Recently, however, Shore et al. reported that a five-year survival rate with oat cell carcinoma can be attained surgically when the lesion is localized. 15 Two of our 36 patients who had localized intrathoracic oat cell carcinoma and underwent thoracotomy with resection had long-term survival. In both instances, the resection preceded

TABLE 3 Survivors					
	Stage I	Stage II	Stage III	Unstaged	
6 months after diagnosis	35	10	119	0	
12 months after diagnosis	35	7	69	1 ;	
More than 24 months after diagnosis	26	5	35	0	
More than 36 months after diagnosis	15	0	2	0	
Total number of survivors	f 36	11	261	3	

TABLE 4 Survivors	
Smokers	17/17
Age (average)	62
Female	12/17
Male	5/17
Symptoms	None
Location	
Upper	11/17
Lower	6/17
Histologic	
Adenocarcinoma	10/17
Squamous	4/17
Undifferentiated	1/17
Oat cell	2/17
Stage I	15/17
Stage II	0
Stage III	2/17

the histologic diagnosis. No further chemotherapy or radiotherapy was given. The Veterans Administration Armed Forces Solitary Pulmonary Nodule Study of asymptomatic patients with lesions less than 6 cms showed a 36 percent, five-year survival rate for 11 patients with small cell carcinoma. 16 These were comparable to the results seen in patients with other histologic subtypes. The growing recognition that oat cell carcinoma may occur in both limited and extensive disease states may make the reintroduction of a surgical approach to this disease a reality.

Ten of the 17 survivors presented with adenocarcinoma of the lung; all 10 were classified radiographically as stage I and underwent surgical resection.¹⁴

We found radionuclide scans to be of little value in staging patients. Virtually all patients with positive scans initially were classified TNM stage II or III. Accordingly, we recommend that such scanning be limited to those patients in stage I with bone pain, neurologic complaints, or abnormal alkaline phosphatases.

We have attempted to review an unselected group of patients with lung cancer at a community hospital serving approximately 300,000 people. While we have not evaluated the therapeutic modalities, we have ascertained that patients with stage I carcinoma of the lung can be cured surgically, if detected early enough. For patients who are classified stage II and III, survival statistics are poor, despite surgery, radiotherapy, or chemotherapy.

It may be concluded from our study that survival from carcinoma of the lung depends upon early detection in the asymptomatic patient. Conversely, radiographic detection of lung cancer in the symptomatic patient rarely leads to survival. While a discussion concerning the benefits of annual chest radiographs is not within the scope of this report, we believe that routine chest radiography is the only means available today capable of detecting curable cancer of the lung.

SUMMARY

Three hundred eleven patients with primary carcinoma of the lung were evaluated. Hospital records and initial radiographs were evaluated on all patients who were recorded in the tumor registry of The Mountainside Hospital with the diagnosis of primary carcinoma of the lung from January 1, 1974, to September 30, 1979.

Age, sex, occupation, smoking history, and initial complaints were tabulated. Methods and success rates of all diagnostic procedures, nuclear scans, and chemical analysis were considered. Initial anatomic staging was based on the TNM system. Information concerning survival was obtained by the tumor registry from questionnaires mailed every six months through November, 1981. The whereabouts and progress of all 311 patients were ascertained. Survival was determined from the date the diagnosis of lung cancer was established.

Seventeen patients were alive at the end of the study period. Fifteen patients presented initially with asymptomatic solitary nodules (stage I), while 2 patients were stage III. There were 12 females and 5 males. All underwent lobectomy except for 1 patient who had a pneumonectomy. Of the 294 patients who died, 21 initially were classified as stage I, while 273 patients were stage II and stage III.

We concluded that the most significant factor leading to survival was the clinical and anatomic stage of the patient at the time of presentation.

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CASE REPORTS

Mitral Valve Prolapse in Systemic Amyloidosis: An Unusual Association

STEPHEN M. AUSTIN, M.D., JERALD L. COHEN, M.D., VECIHI BATUMAN, M.D., Newark*

A 65-year-old man with primary systemic amyloidosis and mitral valve prolapse is reported. Mitral prolapse was documented by both auscultation and two-dimensional echocardiography. With the development of congestive heart failure from progressive cardiac amyloidosis, the findings of mitral prolapse regressed. To our knowledge, an association between amyloidosis and mitral valve prolapse has not been reported.

ystemic amyloidosis, primary or secondary, is a rare disease. 1,2 Cardiac involvement in the form of an infiltrative cardiomyopathy is common, occurring in 26 to 80 percent of patients with amyloidosis, with the frequent development of congestive heart failure.3-5 In contrast, mitral valve prolapse is a common disorder that is reported in 6 to 21 percent of otherwise normal individuals. 6-10 Both the Mmode and two-dimensional echocardiographic features of cardiac involvement in systemic amyloidosis have been described.11-15 Although mitral valve prolapse has been associated with other disorders (hereditary and acquired connective tissue diseases, ostium secundum atrial septal defect, coronary artery disease, Von Willebrand's syndrome, and hyperthyroidism), 9,10,16,17 the coexistence of amyloidosis and mitral valve prolapse has not been reported. Recently, we treated a patient with primary systemic amyloidosis and mitral valve prolapse, documented by auscultation and twodimensional echocardiography; the evidence of mitral prolapse regressed when congestive heart failure supervened.

CASE REPORT

A 65-year-old man with progressive chronic renal failure due to primary amyloidosis was admitted to the East Orange Veterans Administration Medical Center on December 15, 1980, for initiation of hemodialysis. The diagnosis of primary amyloidosis had been established in 1978 by renal and rectal biopsies during an evaluation of nephrotic syndrome. He had

no known history of heart disease or murmur, hypertension, diabetes mellitus, or angina pectoris.

On physical examination, his blood pressure was 140/70 mmHg and pulse rate was 80/min. The jugular venous pressure and carotid pulse contour were normal and his lungs were clear. Heart size was normal, with a normal apical impulse in the fifth left intercostal space at the midclavicular line. Cardiac rhythm was regular; a midsystolic, nonejection click was present at the apex. A soft grade one out of six apical crescendo late systolic murmur was heard initially, but not on subsequent reexamination, although the click persisted. No gallop rhythm or pericardial friction rub was present. The liver was enlarged 4 to 5 cm below the right costal margin; mild ankle edema was present bilaterally. Predialysis BUN and creatinine were 157 mg/dl and 16.7 mg/dl, respectively.

The electrocardiogram had normal sinus rhythm at a rate of 76 beats/min, left axis deviation of -35 degrees, and low QRS voltage in the limb leads. Chest x-ray showed a normal heart size and clear lung fields. A phonocardiogram (Figure 1) confirmed the presence of a midsystolic, nonejection click at the cardiac apex.

Two-dimensional echocardiographic examination per-

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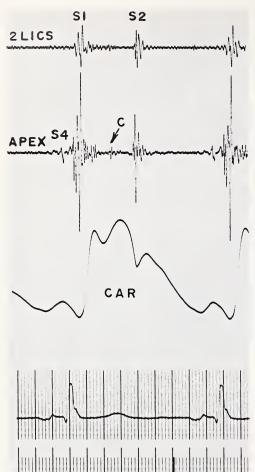


Figure 1—Phonocardiogram and carotid pulse tracing showing a midsystolic nonejection click (C) at the apex, occurring after the upstroke of the carotid pulse tracing (CAR). A fourth heart sound (S₄) also is recorded at the apex.

formed with a Varian 3400 phased array sector scanner demonstrated mitral valve prolapse on the apical four-chamber view (Figure 2), with systolic displacement of the mitral leaflets into the left atrium. The interventricular septum had a hyperrefractile, granular sparkling appearance (Figure 3) that has been reported as characteristic of cardiac amyloidosis. Left ventricular size and contractility were normal.

The patient subsequently was maintained on a hemodialysis program, three times a week. On July 24, 1981, he was readmitted to the hospital in congestive heart failure, with a history of progressive dyspnea over the preceding five days; chest x-ray revealed pulmonary edema. Blood pressure was 170/80 mmHg and pulse rate 116 min. Jugular venous pressure was elevated to the angle of the jaw at 45 degrees, and inspiratory rales were present at both lung bases. Cardiac findings included a loud summation gallop, a three-component pericardial friction rub along the left sternal border, and a soft grade one-to-two out of six pansystolic



Figure 2—Apical four-chamber view of the initial twodimensional echocardiogram showing mitral valve prolapse (MVP), with displacement of the mitral leaflets into the left atrium (LA) during systole.

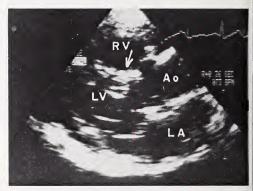


Figure 3—Parasternal long-axis view of the initial twodimensional echocardiogram demonstrating the granular sparkling appearance of the interventricular septum (arrow), characteristic of cardiac amyloidosis. LV = Left ventricle; RV = Right ventricle; LA = Left atrium; Ao = Aorta.

murmur at the apex. Three-finger breadth hepatomegaly and mild ankle edema were present. Electrocardiogram had sinus tachycardia of 115/min, left axis deviation of -50 degrees indicative of left anterior hemiblock, and low precordial QRS voltage. Heart failure was controlled by intensive hemodialysis over the next few days.

Repeat two-dimensional echocardiography showed marked thickening of the mitral leaflets and more extensive granular sparkling of the interventricular septum compared to the initial study (Figure 4). Mitral valve prolapse no longer was present (Figure 5). Anterior and posterior pericardial effusions were present on an M-mode echocardiogram. Left ventricular systolic fractional shortening had decreased from 40 to 27 percent and mitral valve diastolic E-F slope had decreased from 135 mm/sec to 65 mm/sec on M-mode studies.

DISCUSSION

In our patient with biopsy-proven primary amyloidosis with renal, gastrointestinal, and presumed hepatic and splenic involvement, mitral valve prolapse was demonstrated by both auscultation (Figure 1) and two-dimensional echocardiography (Figure 2). The latter has been advocated

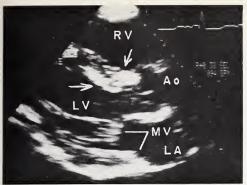


Figure 4—Repeat two-dimensional echocardiogram, parasternal long-axis view after the onset of congestive heart failure, showing more extensive granular sparkling of the interventricular septum (arrows) and marked thickening of the mitral valve (MV). LV = Left ventricle; RV = Right ventricle; LA = Left atrium; Ao = Aorta.



Figure 5—Apical four-chamber view of the study in Figure 4. The mitral leaflets (MV) no longer are prolapsing into the left atrium.

as a possible diagnostic standard for mitral prolapse by Morganroth et al. 18 Obviously, the coexistence of the two processes does not imply a causal relationship. In fact, the evidence of mitral prolapse disappeared with the development of clinical congestive heart failure.

In considering a common disorder, occurring in 6 to 21 percent of otherwise normal individuals,6-10 the finding of mitral prolapse in a patient with systemic amyloidosis, a rare disease, may be fortuitous. The echocardiographic features of cardiac involvement in amyloidosis have been described in over 40 patients.11-15 They include increased interventricular septal and left ventricular posterior wall thickness, impaired left ventricular systolic contraction with normal cavity size, reduction in mitral E-F slope and mitral valve thickening, left atrial enlargement, and pericardial effusion. A characteristic finding in patients with cardiac amyloidosis on twodimensional echocardiography is granular sparkling of the thickened ventricular myocardium.15 This hyperrefractile appearance was found in 12 of 13 patients with cardiac amyloidosis reported by Siqueira-Filho et al. who suggest that this finding in patients with unexplained heart failure virtually is diagnostic of cardiac amyloidosis.15 To our knowledge, the coexistence of systemic amyloidosis and

mitral valve prolapse has not been reported previously.

Initially our patient did not have evidence of congestive heart failure or other clinical findings suggestive of restrictive cardiomyopathy due to amyloidosis. However, he did have left-axis deviation and low QRS voltage on his electrocardiogram that have been reported in 59 percent and 50 percent, respectively, of patients with cardiac amyloidosis. Furthermore, his two-dimensional echocardiogram had evidence of granular sparkling of the interventricular septum, characteristic of cardiac amyloidosis.

Seven months later, he was rehospitalized in florid biventricular congestive heart failure. Repeat two-dimensional echocardiographic examination showed more extensive granular sparkling of the interventricular septum and the development of marked mitral valve thickening, compatible with increased amyloid deposition in the heart (Figure 4). An M-mode echocardiogram had reductions in left ventricular fractional shortening and mitral valve E-F slope compared to his initial study, indicating the development of impaired left ventricular systolic contractile function and diastolic compliance, respectively. The clinical, electrocardiographic, and echocardiographic findings provide evidence of progressive cardiac amyloidosis that led to heart failure in our patient.

With the development of cardiac failure, both the midsystolic click and echocardiographic evidence of mitral valve prolapse no longer were present. Possible explanations include regression of mitral prolapse due to ventricular distension from congestive heart failure,¹⁷ and progressive amyloid deposition in papillary muscles and mitral leaflets leading to thickening and loss of pliability, making them more resistant to displacement into the left atrium. All 15 patients reported by Buja et al.¹⁹ had evidence of extensive valvular and papillary muscle deposition of amyloid at post-mortem examination and 14 of the 15 had amyloid infiltration of the mitral valve.¹⁹

SUMMARY

A 65-year-old patient with coexistent systemic amyloidosis and mitral valve prolapse is reported. Mitral prolapse was documented by both auscultation and two-dimensional echocardiography. With the development of congestive heart failure due to progressive cardiac amyloidosis, the findings of mitral valve prolapse regressed. To our knowledge, an association between amyloidosis and mitral valve prolapse has not been reported.

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Spontaneous Bloody Pneumothorax: Case Report and Literature Review

DAN A. MORGENSTERN, M.D., J. THOMAS DAVIDSON, M.D., JAMES J. CHANDLER, M.D., Princeton*

We report on an illustrative case of hemopneumothorax and review the literature with emphasis on therapy.

pontaneous hemopneumothorax is characterized by atraumatic, partial, or complete lung collapse and the accumulation of air and blood in the pleural space. Laennec recognized this condition in 1828 at a post-mortem examination and Whittaker first treated it successfully in 1876 using aspiration. By 1900, detailed descriptions by several different authors were presented. 1-3

Spontaneous hemopneumothorax begins with the symptoms of pneumothorax—dyspnea and chest pain. This may be blurred or may progress to signs of hemorrhagic shock and development of a tension pneumothorax if the diagnosis is not made promptly. The condition is found most commonly in young males and comprises 2 to 5 percent of hospital series of spontaneous pneumothorax.

CASE REPORT

A 25-year-old man came to the emergency room of The Medical Center at Princeton with a four-day history of increasing left chest pain and shortness of breath. There was no antecedent trauma. A similar episode resolved spontaneously without treatment one year earlier. The patient denied any history suggestive of tuberculosis. Blood pressure was 100/70 and apical pulse was 80; the left chest was hyperresonant with no audible breath sounds. Chest x-ray indicated a complete left pneumothorax with fluid level. Anterior and lateral chest tubes immediately were placed with drainage of air and 1400 cc of nonclotting, old blood. The tubes were connected to water-seal suction and complete

lung reexpansion resulted. After a total output of 2450 cc of bloody fluid, the tubes were removed separately by the third hospital day; the patient was discharged three days later.

DISCUSSION

In almost all cases, the cause of spontaneous pneumothorax is rupture of a subpleural emphysematous bleb that communicates with the bronchial tree. This results usually in little or no bleeding, but when the adhesions are well vascularized, bleb rupture can precipitate significant hemorrhage and hemopneumothorax. The bleeding point virtually will be always on the parietal pleura; a muscular layer is absent in the adhesion-vessels torn by the pulmonary collapse.7,10,11 Literature review reveals that tuberculosis patients have a high incidence of hemothorax complicating spontaneous pneumothorax. 6.7 Several cases of spontaneous hemopneumothorax have been reported in patients with intrathoracic or intrapleural malignancy; lymphangiosarcoma, mesothelioma, and choriocarcinoma have been reported.7 All of these rare, underlying conditions need to be considered whenever the diagnosis of spontaneous hemo-

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pneumothorax is made. Pleural biopsy and cell block of pleural fluid can be useful in diagnosis. In addition, hemothorax can be a troublesome complication of anticoagulant therapy.^{15,16}

Treatment has undergone considerable change as techniques in closed thoracostomy and drainage have evolved over the last several decades. *14 Thoracotomy and lung decortication after this condition were first described in 1948 by Elrod and Murphy and constitute the first report of operative treatment. 4 At present, the placement of at least

"The placement of at least two large bore chest tubes to drain the accumulated blood and air is the preferred first step in the management."

two large-bore chest tubes to drain the accumulated blood and air is the preferred first step in the management. Complete reexpansion of the lung is essential to nonoperative hemostasis. Reexpansion usually tamponades bleeding from the parietal pleura. Serial hemograms are necessary in monitoring these patients. In some cases, thoracotomy must be undertaken to control continued bleeding (or persistent air leak). During open thoracotomy, full inspection of the entire hemithorax is advisable. Unruptured blebs or bullae should be resected and pleural abrasion or parietal pleurectomy should be performed.

CONCLUSION

Spontaneous hemopneumothorax is an uncommon but serious problem that responds well to aggressive early treatment, adequate thoracostomies, and complete lung expansion while effectively managing blood loss. Although congenital pulmonary blebs are the usual cause of this condition, tuberculosis and cancer must be considered as possible underlying etiologies.

SUMMARY

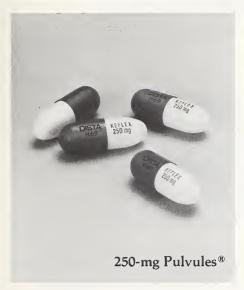
This paper presents an illustrative case, reviews the world literature, and presents the recommended treatment of spontaneous bloody pneumothorax that is caused by congenital pulmonary blebs. Symptoms of spontaneous pneumothorax (dyspnea and chest pain) and signs of blood loss (tachycardia, syncope, shock) are present.

Complete lung reexpansion is essential. If double-tube thoracostomy is ineffective, thoracotomy is necessary to control continued bleeding or air leak.

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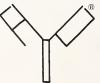
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Cholecystocholedochal Fistula

RICHARD K. SPENCE, M.D., and VERENANDO JUARIQUE, M.D., Camden*

Cholecystocholedochal fistula is an uncommon complication of biliary tract disease. Preoperative diagnosis is difficult. Failure to recognize the lesion intraoperatively may lead to inadvertent injury of the common duct. A patient with a cholecystocholedochal fistula secondary to cholelithiasis is described; the operative approach and management of the lesion is discussed.

istulae between the gallbladder and the common bile duct are uncommon sequelae of chronic cholecystitis and cholelithiasis. 1-5 Because these lesions are rare and difficult to diagnose preoperatively, they usually are discovered unexpectedly at the operating table. Failure to recognize the presence of a fistula may lead to injury of the common duct and its neighboring structures with potentially disastrous consequences. This report describes a patient with a cholecystocholedochal fistula and discusses the etiology, diagnosis, and repair of this entity.

CASE REPORT

A 70-year-old white female was admitted to Jeanes Hospital with a three-day history of colicky abdominal pain, nausea, and vomiting. On physical examination, minimal right upper quadrant abdominal tenderness was elicited. Admission laboratory examination included: Hgb: 15.8; WBC: 20,400/cm³ with a shift to the left; prothrombin time: 52% of normal; total bilirubin 7.6 mg/dl (normal 0-1.5); alkaline phosphatase: 319 units (normal 34-108); SGOT: 712 units (normal 5-27); amylase: 10 units/dl (normal 7-30); and HAA: neg. Urinalysis was positive for bilirubin. A chest x-ray and an obstruction x-ray series of the abdomen were interpreted as normal. The patient was treated with nasogastric suction, intravenous fluid, and electrolyte replacement.

Over the next two to three days, the patient gradually

improved. Intravenous cholangiography and ultrasonic examination of the right upper quadrant of the abdomen showed dilated intrahepatic ducts, a minimally dilated common bile duct, and a normal appearing gallbladder. There was no evidence of calculi in the gallbladder or the ducts. Because of persistently elevated bilirubin and alkaline phosphatase, percutaneous transhepatic cholangiography was performed. Dilatation of the hepatic and common ducts again was seen and a 1 cm defect was noted in the distal end of the common duct. This was thought to be a stone.

After preoperative preparation, exploratory laparotomy through a right subcostal incision was performed. The gallbladder was encased in an inflammatory mass which included small intestine, colon, and omentum. Using sharp dissection, the gallbladder was freed from these surrounding structures. It remained adherent, however, to the common duct with no plane distinguishable between the two. Because of uncertainty as to anatomic relationships, the common duct was identified near its termination in the duodenum and was traced proximally. To avoid possible injury to the common duct, we opened the fundus of the gallbladder and dissected toward the cystic duct—common duct junction within its lumen. A normal-sized cystic duct communicating

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Figure—Fistula between the fundus of the gallbladder and the common duct.

with the common duct was identified. Proximal to this, a 1.5 cm fistula between the fundus of the gallbladder and the common duct was found (Figure). After ligating both the cystic artery and cystic duct, the gallbladder was excised from its connection with the common duct leaving a 0.5 cm edge around the fistula. The common duct was explored, and a 1 cm stone, impacted in the distal end, was removed. A Ttube was inserted in the duct through the fistula. Using interrupted chromic catgut, the gallbladder remnant was sutured closed, securing the T-tube. Free flow of contrast material into the duodenum from normal intrahepatic ducts was demonstrated on subsequent cholangiography. No further stones were seen. The patient's postoperative course was uneventful and she was discharged two weeks after operation with the T-tube in place. One month after the operation, a T-tube cholangiogram showed a normal duct with no defects or obstruction. The T-tube was removed and the patient is in good health.

DISCUSSION

Cholecystocholedochal fistulae are uncommon complications of gallbladder disease. Corlette reported 24 cases in 3,300 biliary tract procedures—an incidence of 0.7 percent.¹ ReMine found a 1.2 percent incidence of fistulae in a review of 424 biliary tract operations performed at the Mayo Clinic.³ Spontaneous cholecystocholedochal fistulae are a direct result of erosion of a gallbladder stone into the common duct. Although it seems possible for a fistulous tract to be established by other means, e.g. extension of a carcinoma, to our knowledge this has not been described. The mechanism of fistula formation is similar to that seen with biliary-enteric fistulae. Adhesions between the gallbladder and common duct are formed secondary to cholecystitis and/or cholangitis. Pressure on this inflamed area from within the gallbladder by a stone leads to necrosis and

eventual erosion into the common duct. Fistulization most often occurs between Hartman's pouch and the common duct, but can be found anywhere in the gallbladder.^{1,2} Erosion through and obliteration of the cystic duct may occur. The stone may impact in the fistula or pass into the common duct. Dependent upon its size and the dimensions of both the duct and ampulla, the stone may remain in the common duct or be extruded into the duodenum. Obstruction of the common duct by the stone frequently follows fistulization.

Preoperative diagnosis of this disorder is extremely difficult. A history consistent with recent or concurrent cholecystitis usually can be elicited. Fever, right upper quadrant tenderness, and an elevated white blood count may be present. The great majority of patients have evidence of common duct obstruction with jaundice and elevated alkaline phosphatase levels. Clinically, there is nothing that distinguishes these patients from others with common duct obstruction and biliary tract inflammation. Routine roentgenologic evaluation has not been helpful. Percutaneous transhepatic cholangiography performed in our patient demonstrated a stone in the common duct, but did not show the fistula.

The diagnosis of cholecystocholedochal fistula, therefore, almost always is made at the time of operation. The surgeon who, upon entering the right upper quadrant, encounters a mass of dense adhesions encompassing the gallbladder, should be aware of the possible existence of a fistula and proceed cautiously. Distortion of normal anatomic relationships caused by inflammation and scarring is the rule. The fundus of the gallbladder should be dissected carefully from surrounding structures, if possible. Attempts to establish a plane between the gallbladder and the common duct where none readily can be identified are foolhardy and should be abandoned. To approach the lesion safely, the gallbladder should be opened distally and dissected from within down to the area of fistulization.

Exploration of the common duct with removal of stones then can be undertaken. Cholangiography should be performed routinely to evaluate the extent of the fistula, to search for intrahepatic and ductal stones, and to assure free flow of contrast material and bile into the duodenum. Corlette recommends the use of a Foley catheter placed through the fistula as a convenient means of accomplishing this task.¹

"The great majority of patients have evidence of common duct obstruction with jaundice and elevated alkaline phosphatase levels."

Repair of the fistula should be accomplished by closing the defect around a T-tube. Remnants of the gallbladder can be utilized for this purpose. It is important to delay excision of the opened gallbladder from the common duct until the extent of the fistula has been determined. Corlette recommends leaving a cuff of gallbladder around the fistula that can be closed with interrupted absorbable sutures.¹ Sandblom has described the use of a pedicle graft or flap of gallbladder to close the defect.⁴ Chourdakis closed a fistula

using a pedicle graft based on the cystic duct. If one leaves sufficient tissue for closure, patch grafting or choledochoenteric bypass procedures should not be necessary. Care of the T-tube and timing of removal should be based on the subsequent clinical course and demonstration of a patent duct by cholangiography.

No long-term followups of these patients have been reported. If the repair of the duct is performed with care and attention, specific sequelae, such as stricture from scarring, should not be anticipated. It is possible that the retained remnant of cystic duct and gallbladder as described by Chourdakis may produce symptoms at a future date from inflammation or stone formation. Repairs using a cuff of gallbladder should prevent this potential complication.

SUMMARY

Cholecystocholedochal fistulae, uncommon complications of gallbladder disease, should be understood by surgeons who treat patients with cholelithiasis. This entity is difficult to diagnose preoperatively. The diagnosis is made most commonly in the operating room when the surgeon encounters a mass encompassing the gallbladder in the right upper quadrant. Because distortion of normal anatomy by scarring

and inflammation is common, the surgeon must take great care in dissecting the gallbladder. This should be done by opening the gallbladder distally and dissecting down from within. Exploration of the common duct should be undertaken to look for further stones. Repair of the fistula often can be accomplished by simply closing the defect around the T-tube. Remnants of the gallbladder can be utilized for this purpose or a pedicle based on the cystic duct may be needed to close the defect. Postoperative care for these patients should be the same as that followed for any patient with the T-tube after common duct exploration.

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Spurious Hyponatremia in Diabetic Ketoacidosis with Massive Lipid Elevations

MICHAEL H. GOLDMAN, M.D., and MASSOUD KASHANI, M.D., Englewood*

A patient with diabetic ketoacidosis was found to have greatly elevated plasma lipids. Report of his plasma sodium analyzed through standard laboratory techniques was found to be depressed incorrectly. A simple correction formula is presented that adjusts for this lipid factor.

rtificial hyponatremia is a recognized complication of marked lipid elevation. Despite this knowledge,

misleading plasma sodium levels occurring in the setting of diabetic ketoacidosis with profound elevation of triglyceride and cholesterol levels have led to mismanagement of fluid replacement and to a fatal outcome.²

This case report demonstrates the marked pseudohyponatremia that can occur in hyperlipidemic states and points out the usefulness of a simple correction formula.

CASE REPORT

A 13-year old black male was seen in the emergency room in diabetic ketoacidosis. Physicial examination was notable because of lipemia retinalis, hypertension (130/110), tachycardia (120/min), and a bicarbonate of 2 mmol/1. Initial laboratory reports were; serum sodium, 115 mEq/1; potassium 3.2 mEq/1; chloride 83 mEq/1; and glucose 334 mg/dl. Acetone was 90 mg/dl. Despite treatment with intravenous insulin, sodium bicarbonate, and normal saline, studies two hours after admission showed serum sodium at 100 mEq/1; an immediate repeat value was 96 mEq/1. Inspection of the serum revealed a milky, thick appearance; lipid analysis showed a triglyceride level of 13,500 mg/dl and a cholesterol of 1,025 mg/dl. A "corrected" serum sodium, allowing for the lipid elevations, was reported from the lab to be 128 mEq/1. Continuation of normal saline and regular insulin returned the sodium, glucose, and pH to normal within 24 hours. The lipids normalized within five days.

COMMENT

Mismeasurement of plasma sodium and other electrolytes in the setting of marked lipid elevations (>1.5 gm/dl) can cause incorrect fluid replacement decisions. Displacement of plasma water and interference with standard laboratory testing because of high viscosity or direct participation in chemical reactions may account for erroneous determinations.^{1,3,4}

A convenient formula, taking into consideration this pseudohyponatremic state, is shown in the Table. In the case presented, this revealed a change of a miscalculated serum sodium from 100 mEq/1 to 128 mEq/1. The higher the triglyceride increase, the more discrepant will be the two levels.

Serum osmolality, calculated through freezing point depression, is another laboratory study of value since it is unaffected by the presence of excess lipids. It was not done in this case. Its determination should be an additional guide to the patient's true state of hydration and sodium balance when profound lipid disturbances are present.

^{*}From Englewood Hospital, Englewood, where Dr. Goldman is Attending Physician, Department of Medicine, and Dr. Kashani is Attending Pathologist, Department of Pathology. Correspondence may be addressed to Dr. Goldman, Englewood Hospital, Englewood, NJ 07631.

TABLE

Formula

Percentage of

increase of =

(2.1 X triglyceride gm/dl) - 0.6) serum sodium

Example

= 100 mEg/1Reported serum sodium Reported triglyceride = 135 gm/dl

13.5 X 2.1 = 28.35 - 0.60

27.75

128 mEg/1

Percentage of increase of =

28% serum sodium Reported

serum sodium 100 mEg/1 + 28 mEg/1

Actual serum sodium

CONCLUSION

The use of a rapid correction formula for patients with elevated lipid levels and the immediate evaluation of serum osmolality will help prevent incorrect management decisions.

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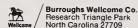


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THERAPEUTIC DRUG INFORMATION

New Drugs: Part Two

This information is compiled by the International Pharmaceutic Drug Information Center (IDIC), affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences of Long Island University.*

n response to numerous requests, the following information concerning new drugs marketed in 1981 is provided in a four-part series; this article is the second part.

BACAMPICILLIN HYDROCHLORIDE (SPECTROBID®, ROERIG)

Bacampicillin hydrochloride is an orally administered "prodrug" metabolized in vivo to ampicillin. It is indicated for the treatment of the infections caused by ampicillin-susceptible organisms. These include upper and lower respiratory tract infections due to streptococci, pneumococi, nonpenicillinase-producing staphylococci, and H. influenza. It also is effective in the treatment of urinary tract infections due to E. coli, Proteus mirabilis, streptococci, and susceptible staphylococci as well as gonorrhea. Bacampicillin is contraindicated in patients with a history of allergy to the penicillin and cephalosporin classes of antibiotics. Safety in pregnancy has not been established. Ampicillin is excreted in breast milk and, thus, caution should be exercised when using bacampicillin in nursing mothers.

The most frequent adverse reactions seen in 2 percent of the patients receiving bacampicillin are epigastric upset and diarrhea. Other adverse reactions noted with ampicillin include: stomatitis, nausea, vomiting, glossitis, black hairy tongue, entrocolitis, pseudomembranous colitis, skin rashes, urticaria, erythema multiforme, and occasional cases of exfoliative dermatitis. A moderate rise in serum SGOT may be noted in some patients treated with bacampicillin. Reversible anemia, thrombocytopenia, thrombocytopenic purpura, eosinophilia, leukopenia, and agranulocytosis have been reported with penicillins. The ampicillin class of antibiotics should not be administered to patients with mononucleosis as increased incidence of skin rash has been reported.

Bacampicillin should not be used with allopurinol as this increases the incidence of skin rashes. It should not be

administered with disulfiram as an antabuse-like effect may occur.

The usual dose of bacampicillin is one 400 mg tablet every 12 hours. For more severe infections, two 400 mg tablets could be administered every 12 hours. Bacampicillin only should be used in children weighing 25 kg or more. See package insert for complete dosage information.

Bacampicillin is available as 400 mg tablets.

CAPTOPRIL (CAPOTEN®, SQUIBB)

Captopril is a specific competitive inhibitor of angiotensin I-converting enzyme, the enzyme responsible for converting angiotensin I to the potent endogenous vasoconstrictor, angiotensin II. It is indicated for the treatment for hypertensive patients who either have failed to respond satisfactorily or developed unacceptable side effects to multidrug regimens. Although effective alone, captopril usually should be used in combination with a thiazide diuretic because of the additive antihypertensive effect. While beta-blockers may be used with captopril, the overall effect of the two drugs is less than additive. Caution should be exercised when using captopril in patients with impaired renal function, serious autoimmune disease (particulary systemic lupus erythematosus), patients exposed to other drugs known to affect white cells or immune response, and in severely salt/volume depleted patients. Safe use in pregnancy, nursing mothers, and children has not been established fully.

The most frequent adverse reactions reported with cap-

^{*}The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians. The Director of the Center is Jack M. Rosenberg, Pharm. D., Ph.D.; the Consultant is Walter A. Modell, M.D. This month's column was prepared by J.M. Rosenberg, Pharm. D., Ph.D.; H.L. Kirschenbaum, Pharm.D.; Ghazala Saleem, M. Pharm, M.S.; Jayne Ritz, R.Ph.; and Frances P. Martino, R.Ph. Correspondence may be addressed to the International Pharmaceutic Drug Information Center, 81 DeKalb Avenue, Brooklyn, NY 11201.

topril were maculopapular rash, pruritus, flushing, pallor, and dysgeusia (a reversible diminution or loss of taste perception, with possible accompanying weight loss). Other adverse reactions noted include proteinuria, neutropenia, agranulocytosis, hypotension, eosinophilia, fever, positive ANA titers, angioedema, palpitations, tachycardia, chest pain, angina pectoris, myocardial infarction, Raynaud's syndrome, and congestive heart failure. Consult the package insert for a complete listing of adverse effects.

Patients on diuretics, severe dietary salt restriction, or dialysis occasionally may experience a transient precipitous fall in blood pressure within the first three hours after receiving their initial dose of captopril. Since captopril increases plasma renin activity, its effect is augmented by that of other antihypertensive agents that cause renin release. Concurrent administration of captopril and ganglionic or adrenergic blockers should be attempted with caution because sympathetic tone may be important in supporting blood pressure in captopril-treated patients. Since captopril decreases aldosterone production, elevated serum potassium may result. Potassium supplements or potassium sparing diuretics should be used cautiously and only when clearly indicated. In addition, if the patient has received spironolactone (sold as Aldactone®) at any time up to several months prior to captopril therapy, the serum potassium should be monitored frequently, since the effect of spironolactone persists. Captopril may cause a false-positive urine test for acetone. Transient elevations of BUN and serum creatinine also have occurred.

Captopril should be taken one hour before meals since the presence of food in the gastrointestinal tract can decrease its absorption by 30 to 40 percent. Dosage must be individualized. The recommended initial adult oral dose is 25 mg T.I.D., which slowly may be increased to a maximum daily dose of 450 mg. Captopril dosage or dosing frequency should be reduced in patients with significant renal impairment. See the package insert for complete dosing information.

Captopril is available as 25, 50, and 100 mg, white tablets for oral use.

CEFOTAXIME SODIUM (CLAFORAN®; HOECHST-ROUSSEL)

Cefotaxime sodium is a semisynthetic, "third generation," broad spectrum cephalosporin antibiotic indicated for the treatment of serious infections of the lower respiratory tract, urinary tract, skin, gynecological infections, and bacteremia/septicemia caused by susceptible strains of gram positive and gram negative microorganisms. It is contraindicated in patients who have shown hypersensitivity to cefotaxime sodium or to the other cephalosporin-type antibiotics and should be given with caution to patients who exhibited an anaphylactic reaction to penicillin. Caution should be used when administering cefotaxime to patients

with renal dysfunction. Safety in pregnancy, nursing mothers, infants, and children has not been established.

Cefotaxime sodium is generally well tolerated. The most frequent adverse reactions are local reactions following IV or IM injection, rash, pruritis, fever, and adverse GI symptom. Refer to the package insert for a complete listing of adverse reactions.

Increased nephrotoxicity has been reported following concomitant administration or cephalosporins and aminoglycosides.

The usual adult dosage for cefotaxime sodium is 1 gm every 6 to 8 hours 1M or IV. Dosage and route of administration should be determined by susceptibility of the causative organism, severity of the infection, and the condition of the patient. See the package insert for complete dosing information.

It is supplied in vials containing 500 mg, 1 gram and 2 grams of the free acid equivalent, and in 1 gram and 2 gram infusion bottles.

CINOXACIN (CINOBAC®, DISTA)

Cinoxacin is a synthetic antimicrobial agent indicated for treatment of initial and recurrent urinary tract infections in adults, caused by suspectible microorganisms, such as Escherichia coli, Klebsiella species, Entrobacter species, Proteus mirabilis, and P. vulgaris. Cinoxacin is contraindicated in patients with a history of hypersenitivity to it. Cross-resistance with other drugs in the class (e.g. nalidixic acid, oxalinic acid) has been reported. Cinoxacin is not recommended for anuric patients and should be used with caution in patients with a history of hepatic disease. Use of cinoxacin during pregnancy is not recommended. Safe use of this drug in nursing mothers is not established. It also is not recommended for use in prepubertal children.

Adverse reactions reported to date all have been reversible. The most frequently reported gastrointestinal side effects noted include nausea, anorexia, vomiting, abdominal cramps, and diarrhea. The central nervous system side effects observed with cinoxacin include headache, dizziness, insomia, tingling sensation, perineal burning, photophobia, and tinnitus. Hypersensitivity reactions such as rash, urticaria, pruritus, and edema have been reported. Cinoxacin also has been noted to affect some laboratory tests such as BUN, SGOT, and SGPT, serum creatinine, and alkaline phosphatase. For a complete listing of adverse reactions consult the package insert.

No interaction potential has been reported.

The usual adult dose for the treatment of urinary tract infection is 1 gm daily, administered orally in 2 to 4 divided doses for 7 to 14 days. Dosage should be reduced in patients with impaired renal function. Consult the package insert for complete dosage information.

Cinoxacin is available as pulvules of 250 mg and 500 mg

NUTRITION UPDATE

Universal Diet Recommendations for Prevention of Coronary Heart Disease*

RAYMOND REISER, Ph.D., College Station, TX

oronary heart disease (CHD) as a result of atherosclerosis is the leading cause of death in the United States. Despite a 20 percent decline since 1960, CHD still accounts for nearly 50 percent of the deaths in the United States.

With the identification of high levels of serum cholesterol as one of the major risk factors in the development of atherosclerosis, dietary recommendations have been put forward that focus on diet modification for management of CHD. These recommendations are based on a diet-heart hypothesis which suggests a direct link between dietary lipid and CHD. However, a critical question that challenges this direct connection remains unanswered: should dietary recommendations for the prevention of a coronary heart attack (CHA) be made to the entire United States population or only to those diagnosed "at risk" for CHD? The current controversy appears to be a failure to interpret properly the scientific data and a tendency to emphasize only half-truths.

THE DIET-HEART (LIPID) HYPOTHESIS

The fundamental assumptions of the diet-heart hypothesis are: (1) a positive link between the amount of ingested saturated fat and cholesterol and the level of serum lipids, especially cholesterol; (2) a positive relationship between all levels of serum lipids and cholesterol and the incidence of CHD; and (3) reduction of risk for most Americans of CHD by adhering to the AHA recommendations.

CHD is the result of the occlusion of the coronary arteries by atheromas (plaque) which form in the intima of the arterial walls from deposited cholesterol and lipids. Atheromas are thought to form as a result of certain lipid-protein complexes in the blood called low density lipoproteins (LDL). The LDL fraction appears to increase the risk of CHD because of an efficient ability to transport the metabolic products of foods such as dietary fat and cholesterol to the site of plaque formation.

It now is accepted that cholesterol from fat and very low density lipoproteins (VLDL) in the blood are not atherogenic. In addition, evidence suggests that the high density lipoproteins (HDL) actually scavenge cholesterol from tissues and arteries. Furthermore, the diet-heart hypothesis is hampered by lack of a clear definition and improper use of the terms hyperlipidemia and hypercholesterolemia.

The problems with formulating an all-encompassing dietheart hypothesis has been the complex etiology of CHD. For example, although studies show that serum cholesterol levels are positively correlated with the incidence of a CHA, others show that this relationship is not linear and holds true only at serum levels above the 225-240 mg/dl range. In addition, a number of factors influence serum cholesterol levels including variable individual responses to dietary lipids and to cholesterol-lowering components in food such as pectins and plant sterols.

In spite of these known variables, the American Heart Association (AHA) has advocated a single set of dietary guidelines for all Americans. These are based on the above diet-heart assumptions and recommend reducing the daily consumption of cholesterol to less than 300 mg and total calories from fat to under 30 percent.²

POSITIONS OF HEALTH GROUPS

The American Medical Association (AMA) recognizes that the link between diet and the risk of CHD is complex, especially the role of serum lipoproteins in that relationship. Thus, the AMA, the Food and Nutrition Board of the National Academy of Sciences, and a task force of the American Society of Clinical Nutrition have not endorsed the AHA dietary recommendations for the entire United States population.^{3,4,5} Most opponents of the AHA recommendations agree, however, that in certain responsive individuals and under well-defined clinical settings reduction of dietary cholesterol and saturated fat statistically, and sometimes clinically, will influence serum cholesterol. The AMA, therefore, recommends that dietary modification only be authorized after a person has been diagnosed as hyperlipidemic.

The AHA dietary recommendations, however, are for the entire United States population. The AHA believes that

^{*}Reprinted with permission of Contemporary Nutrition 6:10, 1981, a newsletter from the Nutrition Department of General Mills, Inc., Minneapolis, MN. Dr. Reiser is Professor Emeritus, Department of Biochemistry and Biophysics, Texas A&M University, College Station, TX 77843.

TABLE 1 Serum Cholesterol Levels and the Rate of Coronary Events* Serum Cholesterol (mg/dl) <175 200-224 250-274 275-300 >300 Coronary events/1000/10 years First events 45 52 53 67 112 115 162 17 17 Sudden death 14 18 30 29 27 All CHD deaths 24 28 25 24 47 45 58 *From the National Cooperative Pooling Project.

normal and high levels of serum lipids and cholesterol cannot be defined. Therefore, this organization suggests that all foods that have been found to experimentally increase blood lipid levels be consumed in reduced amounts. The AHA implies that under this line of reasoning, the persons "at risk" would benefit while the others would be unaffected. Unfortunately, these dietary recommendations have been shown to have little effect on free-living adults.6-11

Before 220 million Americans are advised to make radical changes in their diet, food purchases, and food preparations, and before agriculture is directed to make major technological changes in product development, there must be reasonable assurance that the cholesterol diet-heart hypothesis is correct and that the benefits are worth the risks. ¹² Indeed, the probability of benefit may be less than the American public has been led to believe. ⁹⁻¹¹

WOULD THE "PRUDENT" DIET BENEFIT ALL AMERICANS?

Data from epidemiological studies, such as that of the preliminary and final reports of the National Pooling Project (NPP) and the Health and Nutrition Examination Survey (HANES) may be the closest one can come at the present time to estimating the number of coronary heart attacks as a function of serum cholesterol levels. ¹⁶⁻¹⁸ Table 1 relates

	1	TABLE 2	
Grouped	I Incidence of Cor of Hyper	onary Heart Dise cholesterolemia*	
Group	Serum Cholesterol mg/dl	Percent Incidence	Percent Incidence of CHD due to Hyper- cholesterolemia
	<175 175-199 200-224	0.45 0.52 0.53 Average 0.51	0.0
11	225-249	0.67	0.16
III	250-274 275-300	1.12 1.15 Average 1.13	0.62
IV	>300	1.61	1.10
*From th	e National Coope	erative Pooling Pr	roject.

serum cholesterol levels to the incidence of first coronary events, sudden death, and all CHD deaths. These data clearly show that the incidence of coronary events do not increase substantially until serum cholesterol levels are greater than 249 mg/dl and thus do not support the concept of a linear increase in risk with increase in serum cholesterol at all levels.

Indeed, Table 2 indicates a distribution of the incidence of CHD into four distinct serum cholesterol groups. In group I (175-224 mg/dl) which represents 40 percent of the male population above 35 years, the incidence of CHD is only .5 percent. Since group I cannot be considered hyper-cholesterolemic, it is likely that a CHA experienced by this group is not due to cholesterol. In groups II to IV (above 224 mg/dl), therefore, the incidence of a CHA attributable to hypercholesterolemia can be determined by difference (Table 2). These results suggest that a CHA in groups II to IV will occur in approximately .16 percent, .62 percent, and 1.10 percent, respectively, of men above age 35.

Can we justify recommendations for major changes in the diet of all Americans? And, in light of the present lack of knowledge concerning the role of diet in the genesis of atherosclerosis, is it responsible policy for health professionals, organizations, and government agencies to attempt to modify the basic dietary habits of the U.S. population? The overall negative ramifications that could result from eliminating such nutritious foods as meat, eggs, and dairy products have not been adequately considered. Further, it is uncertain whether agricultural technology currently is advanced enough to make the necessary adjustments. Paternalistic dietary advice based on incomplete knowledge and misinformation, therefore, is not the "prudent" approach for all Americans.

CONCLUSION

The ingestion of any food constituent involves a long series of physiological and biochemical events from the point of ingestion through metabolism to the point of excretion. These events are modified by the nature and amounts of the total diet plus a large degree of biological variation between individuals. So, a single set of dietary recommendations is simplistic. Everyone is not alike and hence may not respond similarly to the same dietary recommendations.

References available upon request.

WHAT IS YOUR OPINION?*

Civilian Military Contingency Hospital System

JACK R. KAREL, M.D., Verona**

n the American Medical Association News of January 8, 1982, I read that there are professional individuals in the United States—hospital administrators and physicans—who do not wish to participate in the Civilian Miliary Contingency Hospital System now under development by the Department of Defense. These individuals do not wish o participate in the care of wounded soldiers because they hink this program is in preparation for a nuclear conflict.

For many years our defenses were allowed to deteriorate adically. Serious erosion of defense establishments occurred n past administrations, and in the medical department. In his respect I should mention the Emergency Medical Serices Act of 1973, amended in 1976, and phased out in 1979. This act was not for development of an emergency medical nass casualty program, but for the federal government to trant seed money to states to develop emergency medical ervices programs and professional training programs for a lay-to-day team approach for emergency medical care by tospitals and professional and allied professional personnel.

The economics of national security demands that we have idequate defense forces; this includes an emergency medical olan that can be implemented at a moment's notice for any najor medical emergency. Major changes have occurred in raditional approaches to military medicine, especially in the readiness of our armed forces to respond to treatment of assualties resulting from an overseas war. Advances in weaponry may produce high numbers of casualties in a very short time; this does not refer to the use of nuclear weapons, specifically. But we need to be prepared for a major conventional war.

In the past we had the luxury of time to prepare the necessary medical support for the care of our wounded soldiers in another part of the world. Therefore, it has become necessary to prepare a medical program with the support of civilian hospitals and health care providers. To

accomplish this, the Civilian Military Contingency Hospital System has been developed. This system provides the necessary mechanisms for civilian hospitals to agree in advance to render temporary assistance by supplementing the capabilities of the military health care system until our armed forces can mobilize and expand their own medical care programs. This is a voluntary program, and a planning effort now will be of great benefit to the health care system in the event of war. The CMCHS is that type of program and it does not allude to any potential nuclear conflict.

Our potential enemy, the Soviet Union, enjoys the criticism exhibited by those in our country (and in Europe) who fail to join in a planning program that will lessen the mortality and morbidity of wounded soldiers.

It is unfortunate that there are many individuals in our medical profession, including hospital administrators, who have become skeptics and distrust the traditional and institutional. I can believe that with the present state of politics, there may be good reason for skepticism and distrust. However, when it comes to the care of wounded soldiers, I cannot believe that the medical profession would look the other way. I would hope that those who are voicing criticism of the CMCHS do not belong to that naive class of individuals, especially when important decisions must be made. I would recommend that those individuals read the texts on Russian ideology.

We must remember that regardless of what happens in the future, when the chips are down, our allies will look to the United States for leadership. In this day and age we canot sell America short.

^{*}We encourage our readers to write opinions on topics of interest. Send your opinion to Editor, *The Journal*, Two Princess Road, Lawrenceville, NJ 08648.

^{**}Dr. Karel is Chairman of the Inter-Agency Commission on Emergency Medical Care.

MSNJ ENDORSED PROFESSIONAL LIABILITY INSURANCE PLAN

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WHEN the commercial insurance companies made it known in 1976 that they no longer wanted to write insurance for New Jersey doctors, a number of physicians decided that it made good sense to form their own company. Owned by the doctors themselves and managed by top insurance professionals, the Medical Inter-Insurance Exchange was founded. Five successful years of service have been completed since the first policy was issued in 1977.

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DOCTORS' NOTEBOOK

Trustees' Minutes April 18, 1982

A regular meeting of the Board of Trustees was held on Sunday, April 18, 1982, at the Executive Offices in Lawrenceville. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows.

Memorial Resolution: Rudolph C. Gering, M.D. . . . Received unanimously a memorial resolution for Rudolph C. Gering, M.D., 1930-1982:

Whereas, the Almighty has chosen to call from us His loyal servant, Rudolph C. Gering M.D.; and

Whereas, as an officer of the Medical Society of New Jersey, Doctor Gering served the members of the Society, the people of New Jersey, and the profession generally; and

Whereas, by his understanding and consideration he won the respect and esteem of all who knew him; now therefore be it

Resolved, that the Medical Society of New Jersey expresses its profound grief at the death of Rudolph C. Gering, M.D., and extends its heartfelt sympathy to his beloved family; and be it further

Resolved, that this Resolution be spread upon the minutes of this meeting and that a copy, suitably prepared, be presented to the bereaved family of Doctor Gering in token of our grief at his passing.

Memorial Contribution ... Approved the contribution made to St. Peter Lutheran Church Building Fund on March 25, 1982, in memory of Doctor Gering.

Report of the Executive Director... (1) MSNJ 1982 Membership... Noted an increase in membership as of April 5, 1982; this figure shows a decrease in membership when compared to April, 1981, figures.

(2) MSNJ Financial Statements . . . Reviewed and accepted March 31, 1982, financial statements.

(3) Medical-Surgical Plan of New Jersey ... Advised the New Jersey Department of Insurance of the Society's opposition to Blue Shield and Prudential precluding major medical coverage for participating physicians by the application of service benefits. No reply has been received to date.

(4) Litigation

(a) Subordinated Loan Deductibility . . . Noted the case is scheduled for trial in early May in tax court.

(b) MSNJ et al. versus the State Board of Medical Examiners et al. . . . Noted final decision on physical modality case is expected to be rendered in a few weeks.

(5) Excessive Fee Regulation-State Board of Medical Examiners . . . Agreed with the suggestion by Doctor Harris that it should be the obligation of the State Board of Medical Examiners to conduct a review to determine if fee



complaints from various parts of the state are valid prior to calling a physician in for a hearing before the excessive fee committee. Directed that the State Board of Medical Examiners be requested to conduct the preliminary screening in excess fee cases.

(6) Appointments to the State Board of Medical Examiners ... Directed all county medical societies to be informed of the positions that will be open on the State Board of Medical Examiners and that county societies submit names of members to be recommended for appointment at the Annual Meeting.

Note: Seven of the M.D. positions on the State Board of Medical Examiners are subject to reappointment this year. The Board will conduct a screening process of the names of prospective nominees before they are submitted to the Governor for consideration.

Council on Legislation . . . Approved the amended report of the Council on Legislation

(1) Proposed Malpractice Reform Legislation from the Medical Inter-Insurance Legislative Committee . . . Approved the following recommendation with regard to three bills dealing with malpractice reform:

That the Board of Trustees approve the proposed legislation.

(2) Current State Legislation . . . Voted to change the position on S-390 and A-531 from No Action to Active Support, noting these bills establish and fund a Commission on Cancer Research. Suggested the Council might consider offering an amendment to S-400 following the completion of its studies. Noted S-400 equates nurse-midwives to physicians as providers of medical services under Blue Shield; action was deferred pending information from Blue Shield.

Council on Medical Services . . .

(1) Committee on Occupational Health, Workmen's Compensation, and Rehabilitation ... Approved the following recommendation:

That the name of the Committee on Occupational Health, Workmen's Compensation, and Rehabilitation be changed to the Committee on Occupational Health, Worker's Compensation, and Rehabilitation.

(2) Interference with Patient Care ... Approved the following resolution: (1) That the Board of Trustees notify insurance carriers that in the interest of good patient care any medical services coordinator representing third-party payers making a change in treatment, course of treatment, or persons giving treatment should discuss the matter with the primary physician before discussing it with the patient. This coordinator must designate himself or herself as an insurance company representative; and

(2) That the eligibility for having the title of the person calling himself or herself medical services coordinator and receiving training as such, should be restricted to persons having completed R.N. training and being licensed in the state of New Jersey or a registered physical therapist currently registered in the state of New Jersey.

Note: The Committee will continue to investigate the practices of third-party intrusion into direct care of patients with compensation and keep the Council abreast of any future developments.

(3) Dual Fee System-Resolution #31 (1981) . . . Supported the following recommendation and plan to present it to the 1982 House of Delegates:

That the following resolution be adopted as a substitute for Resolution #30 (1981):

Resolved, that the Medical Society of New Jersey recognizes that a given service may be enhanced significantly in value by cognitive input which derives from specialty training and/or specialty practice; and

Resolved, that the Medical Society of New Jersey recognizes the right of the individual physician to set his own fee schedule; and

Resolved, that the Medical Society of New Jersey supports the patient's right to adequate and fair insurance coverage for medical services rendered; and be it further

Resolved, that the Medical Society of New Jersey supports the concept of equal thirdparty reimbursement for equal services rendered.

Note: To help prevent discrimination by third-party carriers and to assure that physicians are compensated for the service not the specialty they render, this resolution was rewritten.

(4) Pronouncement of Death by Nonphysicians . . . Noted that opposition to the State Board of Medical Examiners' regulation is on record:

That the Board of Trustees register its opposition to the State Board of Medical Examiners' regulation on the "Pronouncement of Death by Nonphysicians" and make every effort to have the regulation rescinded.

(5) Referral and Reimbursement to a Physician-Owned Corporation . . . Approved the following recommendation and directed that it be referred to the attention of the Judicial Council:

That the concept of referral and reimburse ment on the basis of referrals to a physician owned corporation be investigated by th Board of Trustees for unethical practices.

Council on Mental Health . . . Transfer of the Division of Mental Healtl and Hospitals to the New Jersey Depart ment of Health . . . Approved the follow ing recommendation:

That the Medical Society of New Jerse; support the transfer of the Division of Menta Health and Hospitals from the Departmen of Human Services to the Department o Health.

State Board of Medical Examiners ... Received as informative a report of the April 14, 1982, meeting of the State Board of Medical Examiners from Bernard Robins, M.D.

Committee on Finance and Budget .. Approved the following recommendations:

1. That the budget for the fiscal year beginning June 1, 1982, and ending May 31, 1983, in the amount of \$2,403,335, with \$1,893,285 to be raised through member assessments be adopted.

2. That the 1983 assessment be set at \$255 per regular dues-paying member. (The 1982

assessment was \$245.)

3. That the 1983 assessment be set at \$25 per member for affiliate and associate members. (No change.)

4. That there be an assessment for 1983 of \$25 per member for licensed residents provided the individual is in a residency program entered upon within a reasonable time after his or her graduation from medical school. (No change.)

5. That the 1983 assessment be set at \$5 per student for medical students. (No change.)

6. That for members having difficulty making a lump sum payment of dues, arrangements be made so that dues might be paid to the county societies through the use of a credit card system.

7. That the Professional Liability Insurance Program be referred to the Committee on Medical Defense and Insurance for reev-

aluation for future activities.

Note: In October, 1980, the Board approved a proposal creating a full-time position as Executive Coordinator of the Committee on Impaired Physicians. The Board empowered the Executive Committee to act as an executive search committee to select the Coordinator for the Committee on Impaired Physicians.

Old Business

(1) Post-Mortem Studies for Maternal Deaths . . . Approved the following recommendation and directed that it be referred to the State Board of Medical Examiners for consideration:

That all maternal deaths be subject to postmortem study and that no added cost be incurred by the family of the decedent because of such a requirement,

- (2) Specialty Society Representation in the House of Delegates... Approved the request of the President of the New Jersey Psychiatric Association that his letter of February 2, 1982, regarding proportionate representation of specialty societies in the House of Delegates be withdrawn from consideration by the Reference Committee.
- (3) Family Practice Training Center . . . Suggested because of the complexity of this issue that the Passaic County component write an appropriate resolution to the House of Delegates dealing with continuing intrusion by hospitals into the practice of medicine and the action taken by St. Joseph's Hospital and Medical Center, Paterson, to establish a family practice training center in Clifton.

New Business . .

(1) Blood Bank Task Force in New Jersey . . . Approved the distribution of the Greater New York Blood Program

brochure and poster to increase public awareness of the need for blood donations.

- (2) Request for Appointment of Archivist Historian . . . Directed that Morris H. Saffron, M.D., be appointed Society Archivist Historian.
- (3) Resolution to Ban Ocean Dumping ... Reaffirmed the Society's position to ban ocean dumping as expressed in the following:

Resolved, that the Medical Society of New Jersey take strong action against the public health problem of pollution of our New Jersey waters; and be it further

Resolved, that the Medical Society of New Jersey reaffirm its position calling for the cessation of sludge and waste dumping off our New Jersey coast; and be it further

Resolved, that the Medical Society of New Jersey reaffirm its position against the dumping at sea of toxic waste material; and be it further

Resolved, that the Medical Society of New Jersey notify the public, the press, and responsible governmental agencies that irreversible damage will be caused to our marine environment to the detriment of future generations if prolonged and indiscriminate dumping is permitted to continue in our offshore waters.

- (4) Conference on Consumers, Medicines, and the Marketplace . . . Authorized MSNJ cosponsorship and directed selection of appropriate Society representation at Mid-Atlantic Conference on Consumers, Medicines, and the Marketplace.
- (5) Parameters for Absenteeism at Board Meetings... Directed that this topic be referred to the Committee on Constitution and Bylaws to deal with the question of absenteeism at Board meetings.

Trustees' Minutes May 14, 1982

A regular meeting of the Board of Trustees was held on May 14, 1982, at Resorts International Hotel, Atlantic City. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows.

Report of the Executive Director . . .

(1) MSNJ 1982 Memberships . . . Noted that total paid membership is less than reported at this time last year.

h 1977, when he Veterans Administration ompared Step-2 egimens in 450 mild ypertensive patients, hich regimen was roven most effective?'



- (2) MSNJ Financial Statements . . . Reviewed and accepted the April 30, 1982, financial statements. Mr. Maressa noted that there is a possibility that the Society will be underbudget at the close of the fiscal year.
- (3) MSNJ et al. versus State Board of Medical Examiners et al. . . . Received a copy of the opinion by Judge Richard S. Cohen in the physical modality case. Note: Judge Cohen decided that the Attorney General should provide an order for judgment dismissing the com-

plaint without prejudice. This case will

serve as a precedent for interpretation of

the Physical Therapy Act.

(4) New Jersey State Medical Underwriters, Inc. . . . Authorized MSNJ's Executive Committee to act as a search committee to select nominees for consideration for appointment to their

Board of Governors. Accepted the re-

port of the Executive Director.

New Jersey Hospital Association ... Noted that Louis Scibetta was elected President of NJHA and William J. Cornetta, Jr., was elected Chairman of New Jersey Hospital Association Board of Trustees.

Council on Legislation . . .

- (1) Old Business . . .
- (a) S-141-Russo-Workmen's Compensation . . . Approved this bill that allows injured workers to select, upon notice to their employer, their own physician or hospital for treatment of covered injuries.
- (b) A-784-Markert-Reporting of Certain Information to State Board of Medical Examiners . . . Actively opposed this bill that requires a health care facility to report to the State Board of Medical Examiners any disciplinary proceedings or actions taken by the facility against a board-licensed physician or surgeon, or any malpractice insurance settlement, judgment, or arbitration award to which the facility is a party; and an insurer or insurance association to notify immediately the State Board of Medical Examiners in the writing of any medical malpractice, claim settlement, judgment, or arbitration award over \$10,000 against any board-licensed physician or surgeon insured by the insurer or association.
- (c) A-785-Markert-Reporting of Certain Information to State Board of Medical Examiners . . . Took no action on this bill that grants immunity from civil

damages to any person providing information, without malice, to the State Board of Medical Examiners, involving any act of a physician or surgeon that the person has reasonable cause to believe violates the Medical Practice Act; all information provided shall be held in confidence.

- (2) Current State Legislation ... Approved a list of bills of medical importance except the following:
- (a) S-1163-Bassano-Motor Vehicles ... Referred back to the Council on Legislation for further study.

Note: Bill requires parents of a child under the age of 5 to place the child in an approved child restraint system when transporting the child in the front seat of a car. When the child is in the rear seat, a 1-year-old child must be in a child restraint system and a child between the ages of 1 and 5 must be in a child restraint system or a secured seat belt. The exception to the bill would be when the child is held in the arms of a passenger at least 12 years old.

(b) S-1182-Laskin-Motor Vehicles ... Referred back to the Council on Legislation for further study.

Note: Bill requires parents of a child under 4 years of age to place the child in an approved child restraint system when transporting the child in a car. An exception would be where the child is being held in the arms of a passenger at least 12 years old. If the person charged did not have an approved system in the car at the time of the offense, the judge may impose court costs or dismiss the charge upon being supplied proof that the person has since purchased or rented such a system.

Committee on Medical Defense and Insurance . . .

(1) Comprehensive Legal Services Plan for Physicians—Resolution #23 (1981) ... Approved the following recommendation:

That the Medical Society of New Jersey postpone any further action on Resolution #23 (1981)—Comprehensive Legal Services Plan for Physicians until a survey of the membership can be made to determine if there is sufficient interest in the program.

Note: Resolution #23 calls for legal services plan or legal insurance to be made available in New Jersey and written through a regular insurance company or anyone else who could file with the Department of Insurance. A policy of this type has never been written; there

are no regulations or policies governing this type of coverage in New Jersey.

(2) Administration of Intravenous Anesthetics or Agents by Physicians Other than Anesthesiologists . . . Approved the following recommendation:

That the liability risk of sedatives and analgesics being administered prior to procedures being performed on patients (especially when given in combinations where there is a danger of a potentiation effect on the central nervous system or cardiovascular system and more so when given parenterally), and the necessity of standby measures to deal with adverse reactions, be made known to the membership in CME efforts through the *Physicians Legal Bulletin*, The Academy of Medicine of New Jersey, and the Risk Management Education Program by the Medical Inter-Insurance Exchange of New Jersey.

(3) International Underwriter's Proposal ... Approved the following recommendation:

That the Medical Society of New Jersey offer its members the health and accident protection-disability income program underwritten by the Federal Home Life Insurance Company and the overhead expense protection program underwritten by CNA Insurance, as proposed by International Underwriters.

Ad Hoc Committee on Drug and Alcohol Abuse . . .

Proposal from UMDNJ-School of Osteopathic Medicine to State Board of Medical Examiners ... Approved the following recommendation:

That the Board of Trustees request the State Board of Medical Examiners to form a technical advisory committee, consisting of representatives from MSNJ's Committee on Drug and Alcohol Abuse, the New Jersey Department of Health, and the New Jersey Association for Osteopathic Physicians and Surgeons to develop a counterproposal for CME programs.

Old Business . . .

- (1) Excessive Fee Committee . . . Filed a communication from the State Board of Medical Examiners indicating that only two physicians have been asked to appear before the Excessive Fee Committee, one of whom is not a member of the Medical Society of New Jersey.
- (2) Post-Mortem Studies for Maternal Deaths . . . Filed correspondence from the New Jersey State Medical Examiner urging the Medical Society of New Jersey to consider requiring post-mortem studies in all maternal deaths at the expense of the state. Dr. Robert Goode, M.D., from the New Jersey State Medi-

cal Examiner's office, agreed that the concept would not place a burden on the medical examiner system and that the expense involved would not present a problem since most of the medical examiners in highly populated areas in New Jersey are salaried.

New Business . . .

Conference on Physical Fitness and Sports Medicine in New Jersey . . . Endorsed the Conference on Physical Fitness and Sports Medicine to be held at the Meadowlands Sports Complex on October 1, 1982; the purpose of the program is to provide information on physical fitness for improving athletic performance and to provide a forum for exchanging ideas among professionals and participants of physical fitness and sports activities.

New Members

The Journal would like to welcome these new members to the Medical Society of New Jersey.

Atlantic County

Edward Black, M.D., Ventnor City Ramamurthi S. Iyer, M.D., Margate City Max C. Pepernik, M.D., Pomona William J. Porter, M.D., Pleasantville Sekander A. Ursani, M.D., Atlantic City

Bergen County

Arthur S. Antler, M.D., Ridgewood Daniel G. Adler, M.D., Ridgewood Harry N. Brandeis, M.D., River Vale Lee D. Eisenberg, M.D., Englewood Alan K. Felsen, M.D., Teaneck Lee A. Frankel, M.D., Rutherford Robert J. Gallo, M.D., Hackensack Harold F. Haase, M.D., Englewood Cliffs Henry Haberfeld, M.D., Englewood Robert M. Harris, M.D, Teaneck Patricia Hicks Hartman, M.D., Wyckoff Homayoon Hatefi, M.D., Ridgewood Andrew S. Karlin, M.D., Westwood John F. Kerns, M.D., Teaneck Roger C. Keys, M.D., Hackensack John S. Kim, M.D., Fort Lee George Klafter, M.D., Fort Lee Alvin W. Larkins, M.D., Fort Lee Henry Yan-Chung Lau, M.D., Hackensack Emmanuel A. Lat, M.D., Teaneck Gregory G. Magee, M.D., Englewood Alexander R. Mazziotti, M.D., Hawthorne Ronny Meier, M.D., Bergenfield Mary Ann W. Michelis, M.D., Hackensack Zenaida Palad-Doiranlis, M.D., New

Thomas J. Rakowski, M.D., Ridgewood Roger G. Rosenstein, M.D., Hackensack

Steven M. Rosner, M.D., Woodcliff Lake Thomas J. Schreiber, M.D., Cresskill

Burlington County

Karen J. Brinton, M.D., Sewell Howard R. Goldstein, M.D., Cherry Hill Gerald D. Hayken, M.D., Mount Laurel William J. Kane, M.D., Moorestown Estela N. Lachenal-Santos, Woodbury Timothy J. Pagana, M.D., Mount Holly William J. Rayner, M.D., Mount Laurel Joseph F. Termini, M.D., Mount Laurel Paul L. Vernon, M.D., Moorestown

Camden County

Robert Al-Skaf, M.D., Camden James B. Burnett, M.D., Haddonfield Marvin A. Cetel, M.D., Cherry Hill Margarita F. Elloso, M.D., Camden Jerome L. Haym, M.D., Voorhees Joseph A. Kuchler, M.D., Pennsauken Michael B. Marchildon, M.D., Camden Vesna Mihailovic, M.D., Cherry Hill Hillard C. Sharf, M.D., Pennsauken Richard K. Spence, M.D., Camden Harvey D. Strassman, M.D., Camden Maria T. Valencia, M.D., Camden

Cumberland County

Joseph P. Bernardini, M.D., Vineland

Essex County

Habibullah Anwar, M.D., Newark Rod J. Chronister, M.D., West Orange Dennis A. DiGiacomo, M.D., Newark Barry J. Evans, M.D., Newark

n 1979, when results were published or the five-year, 10,000-patient Hypertension Detection and Follow-up Program (HDFP study), which Step-2 regimen was preferred and was deemed effective without significant adverse effects?

Jatin M. Gajarawala, M.D., Irvington David J. Greifinger, M.D., Belleville George J. Hill, M.D., West Orange Thomas M. Klepacki, D.O., Newark Kenneth A. Kappy, M.D., Werona Abdul R. Samady, M.D., Verona Abdul R. Samady, M.D., West Orange Henry M. Sherman, M.D., & Crange Michael I. Solomon, M.D., Millburn

Gloucester County

Robert A. Heinbach, M.D., Woodbury Sheela Kapoor, M.D., Deptford Michael S. Riviello, M.D., Gibbstown

Hudson County

Nestor R. Bautista, M.D., Jersey City

Hunterdon County

Louis C. DeMaria, Jr., M.D., Lambertville Ruby P. Huttner, M.D., Flemington Sophia Yeh, M.D., Flemington

Mercer County

Robert M. Olson, M.D., Princeton Saraswathi Thirugnanam, M.D., Trenton

Middlesex County

Pasalai N. Aruna, M.D., Fords Irving Brown, M.D., Mountain Lakes Seung C. Cho, M.D., New Brunswick Patricia A. Costanzo, M.D., Fords Ferdinand H. Flick, M.D., Parlin Robert K. Funkhouser, M.D., New Brunswick

Mary C. Jasti, M.D., Princeton Nestor C. Nebab, M.D., Holmdel Michael J. Nissenblatt, M.D., East Brunswick

Aruna Rao, M.D., East Brunswick John C. Rogers, M.D., New Brunswick Indukumar M. Solanki, M.D., New Brunswick

Suresh G. Wable, M.D., Edison Sanford F. White, M.D., Old Bridge

Monmouth County

Allan J. Drapkin, M.D., Ocean Miren Y. Olaizola, M.D., Red Bank Lewis J. Warshauer, M.D., Red Bank

Morris County

Stuart M. Applebaum, M.D., Morristown Ramesh Bellamkonda, M.D., Dover Barry S. Benerofe, M.D., Dover Kenneth R. Cerny, M.D., Morristown Francis T. Deane, M.D., Succasunna Carlos Dicenta, M.D., Gillette Stuart W. Fox, M.D., Morristown Wayne L. Greene, M.D., Dover Samuel D. Kahnowitz, M.D., Denville Robert C. Petrucelli, M.D., Dover Paul A. Strum, M.D., Landing Stevan M. Ware, M.D., Denville

Ocean County

Gary N. Axelrad, M.D., Lakewood Joseph G. Birnbaum, M.D., Toms River John J. DePalma, M.D., Bricktown Sang K. Kim, M.D., Toms River

Passaic County

Kuchipudi Bapineedu, M.D., Fair Lawn Lewis Broslovsky, M.D., W. Milford Chia T. Chang, M.D., Wayne Francis L. Ferrante, M.D., West Paterson David J. Graber, M.D., Passaic Gary G. Knachmuhs, M.D., Paterson Mark L. Lehrman, M.D., Fair Lawn Seth P. Levine, M.D, Pompton Plains Subodh H. Patel, M.D., Clifton Joseph Vitale, M.D., Totowa Mendley A. Wulfsohn, M.D., Passaic

Somerset County

William M. Byra, M.D., Bound Brook Lawrence S. Kluger, M.D., Bridgewater

Sussex County

Parimal S. Bhayani, M.D., Newton Winthrop C. Dillaway, III, M.D., Newton Khosrow Nowroozi, M.D., Sparta Kurt Peters, M.D., Sparta Mahafarin P. Peters, M.D., Newton Joseph D. Rota, M.D., Sparta

Union County

Manek E. Anklesaria, M.D., Linden Robert B. Arnold, M.D., Plainfield Jose C. Chua, Jr., M.D., Elizabeth Jeffrey N. Feldman, M.D., Garwood David A. Goldenberg, M.D., Plainfield Gregory M. LaGana, M.D., Plainfield Raymond Lanza, D.O., Summit Stuart J. Leff, D.O., Roselle Park Chacko P. Mathews, M.D., South Plainfield Sanda Y. Negrea, M.D., New Providence Maria Parr, M.D., Plainfield Steven A. Schlacter, M.D., Union Louis E. Schwartz, M.D., Summit Stefan Semchyshyn, M.D., Summit Steven L. Shapiro, M.D., Westfield Cordy E. Sullivan, M.D., Summit Robert Solomon, M.D., Elizabeth Howard N. Tepper, M.D., Westfield Richard N. Tiedemann, M.D., Plainfield James A. Wolff, M.D., Summit

UMDNJ Notes

Stanley S. Bergen, Jr., M.D. President

Of all the events I report on for The Journal, few are as meaningful and gratifying as the one that tops off each academic year. I refer, of course, to commencement, and this year—on May 26-we proudly conferred 248 M.D. degrees among the total of 369 degrees awarded in the health sciences. It was our first commencement as a university and, following closely on the heels of a groundbreaking ceremony for the new Cancer Research and Treatment Center in Newark and a dedication of the new clinical campus in New Brunswick, it brought to a close a truly milestonefilled year for UMDNJ.

Our graduation ceremony this year—held at the scenic Garden State Arts Center in Holmdel—was dedicated specially to the more than 60 hospitals in our statewide affiliate network. Our program reflected that dedication in a number of ways.

Our featured speaker was the noted hospital authority Edward J. Connors,

President of the 22-hospital Sisters of Mercy Health Corporation of Michigan. His address, which brought to bear many pressing issues facing health care deliverers—such as providing access to the poor, the elderly, and the mentally ill in a time of declining funding—was appropriate to the day. Mr. Connors posed a considerable challenge to those of us who continue our careers as well as the crop of young graduates on the threshold of their careers as health professionals.

Also, reflecting the hospital salute was the presentation of the UMDNJ Medal to Jack W. Owen, leader of the New Jersey Hospital Association for nearly two decades before stepping down to become Executive Vice-President and Director of the American Hospital Association. Mr. Owen, with whom we have worked on many pleasant occasions, is the second recipient of the bronze medal; the first medal went to former Governor William Cahill last year.

Other highlights of the ceremony were the presentation of three honorary doctor of science degrees. The recipients were William G. Bowen, Ph.D., President of Princeton University; Robert Wissler, M.D., Ph.D., distinguished pathologist at the University of Chicago; and Donald S. Fredrickson, M.D., former Director of the NIH and now scholar-in-residence at the National Academy of Sciences.

Commencement is our most dependable activity, never failing to deliver on its promise of joy, enthusiasm, and fellowship shared by the faculty and administration, families and friends, and, most of all, the graduates, to whom this day truly belongs. So, to the good health of us all, UMDNJ awarded: 248 M.D. degrees to graduates of UMDNJ-New Jersey Medical School, Newark, and UMDNJ-Rutgers Medical School, Piscataway (145 and 103, respectively); 85 D.M.D. (doctor of dental medicine) degrees from UMDNJ-New Jersey Dental School, Newark; 28 D.O. (doctor of osteopathy) degrees from UMDNJ-New Jersey School of Osteopathic Medicine, Camden: and 8 Ph.D.s from UMDNJ-Graduate School of Biomedical Sciences, Newark.

In addition, 145 students received certificates in a dozen areas of study from the UMDNJ-School of Allied Health Professions, Newark. Among the specialties: cytotechnology, medical technology, radiologic technology, surgical technology, physical therapy, and emergency medical technology.

MSNJ Auxiliary

Linda B. Hirsch, President

While preparing to assume my responsibilities as President of the Medical Society of New Jersey Auxiliary, I have been reviewing articles about the AMA Auxiliary's goals and achievements, reading the accomplishments of our past state presidents, and surveying the program of the county auxiliaries. The overall view is filled with positives.

The county auxiliaries' activities are focused on community service: health education and screening programs, CPR instruction, and career orientations in health fields. Counties also distribute information on safety, drug and alcohol abuse, and nutrition. They have fund raisers for medical education and research, medical student loans, and scholarships.

The State Auxiliary has provided valuable education and leadership programs, and is moving toward a closer functioning relationship with the Medical Society through joint participation on committees. Our national auxiliary offers substantial guidance and information through newsletters, project bank, and leadership training conferences.

However, there are problems; two major ones are membership and leadership. Declining membership in the auxiliaries worries me greatly, because members give strength to an organization. Auxiliaries are facing difficulties in recruiting officers. This concerns me because capable, enthusiastic leadership is vital to an organization. Why are the medical auxiliaries and many other volunteer organizations having these problems?

We all are well acquainted with the economic pressures and social changes now taking root, the changing and expanding roles of women, and the "take care of me first" ideology. Changes challenge. We need to have decisions and establish priorities and compromises. Let me explain with my life situation as an example.

I am a physician's spouse and a parent. I am employed in a private agency as a marriage counselor and family therapist. I enjoy recreational activities alone and with my family. Compromises, good planning, and ranking priorities enable me to function in all these roles, plus volunteer my time in

valuable organizations like the Auxiliary. I do not work full time, nor do I play tennis daily, but I enjoy whatever time is spent in each activity. I do not believe the problem with declining membership or dearth of leaders is time restraints.

Applying similar analytic skills to problems presented by auxiliaries, as to those presented by my clients, I have concluded that the keys to successful intervention are new directions and the use of skills of communication, cooperation, innovation, and stimulation.

What are some of the new directions I would like to see implemented? Regarding membership, I would recommend that counties whose bylaws permit, should contact often neglected potential Auxiliary members—parents, unmarried adult children, and unmarried adult siblings of physicians who are members of their county medical society. Not only can those people give the Auxiliary strength in numbers, but in active involvement, according to their life situations.

Auxiliaries provide quality programs to improve public health; more recognition in communities will attract more active involvement from members. It is



surprising how little our members really know about the achievements and goals of their county, state, and national auxiliary. One way to become recognized is through the mass media. Another direction is through contact with community groups, to offer assistance, to cosponsor programs, and to reach out to successful organizations such as the League of Women Voters, the Heart Association, Meals on Wheels, and mental health agencies.

New directions include new programs such as immunization, education concerning stress in adolescence, parental guidance, education regarding child abuse prevention, and drug and alcohol abuse. These are programs people can relate to or identify with, and, therefore, will feel stimulated to attend and participate.

Our health care system is at a crossroads because of rising health care costs. Changes will be made and new directions taken. Medical society auxiliaries improve the image of physicians through community programs that show caring toward the public. The practice of medicine needs to gain public support and acceptance. Auxiliaries need to renew efforts in the direction of political

action. Locally and statewide, knowledge of issues, contact with legislators, and participation in political action groups like JEMPAC are necessary.

I am proud to be an Auxiliary member. I am deeply honored to have the opportunity of serving as your State President. The personal rewards I receive from my involvement in the Auxiliary are numerous. I plan to challenge myself, the state executive board members, and, hopefully, all members of the Medical Society Auxiliaries to seek out and follow new directions!*

*Presented at the Annual Meeting, May 16, 1982, at Resorts International, Atlantic City, NJ.

As We Face Another Spring*

Richard I. Nevin
Executive Director Emeritus

Spring is the time for achieving the fulfillment of a winter of dreaming. It is

the seed time of action which will determine the nature and extent of the harvest to follow. It is a season of immense consequence; for upon what transpires in the spring depends the fate of all later seasons. It is, therefore, a time of challenge to all mankind by energetic and enlightened actions each day to influence and determine the character of every tomorrow, and spring now is at hand.

As a people and as a nation, we have been passing through a long, bitter winter of dark discontent. We have had long to contemplate the dire harvests of our recent reaping. In winter desolation, we have counted the staggering costs and the cockle of dishonor, immorality, and disloyalty—at times amounting to treason that almost has been more plentiful than the wheat of personal and national integrity. In consequence, famine threatens—where only plenty should abound. Each thrives where only

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And don't the results of more than \$100 million worth of clinical trials, involving thousands of patients who were followed for several years, merit your serious consideration?

^{*}This piece first appeared in the *Membership Newsletter*, March, 1952. Recently, this paper was read to the House of Delegates at the 1982 Annual Meeting, Resorts International Hotel, Atlantic City.

good should flourish. All this we know as we face another spring.

Each of us, as citizens of the Republic, carries a heavy burden of responsibility. For all of us, collectively, there can be no rich and satisfying harvest unless individually we labor with intelligence and unfaltering constancy of high purpose. As private persons and as members of the diversified society that is the United States of America, in these significant days, we are vouchsafed the hopeful stimulation of another spring. Good seed we can choose, or bad. This much is certain: as we sow, we shall reap.

May clear vision and wholesome, vigorous hope imbue and possess all of you as members of this deliberative assembly of the ancient and distinguished Medical Society of New Jersey. May you be moved, with lifting minds and hearts, to rededicate yourselves to the pristine ideals and noble humanitarian goals of the profession of medicine-with consequent enrichment to yourselves and all the people to whom you render service. And, as you address yourselves to meeting the challenge of the days ahead, may the words of Ulysses and his indomitable companions reverberate in your hearts:

"Though much is taken, much abides: and, though we are not now that strength which in old days moved earth and heaven, that which we are, we are; one equal temper of heroic hearts made weak by time and fate but strong in will.

"To strive, to seek, to find, and not to —Tennyson

Executive Coordinator for Impaired Physicians Program

David Ignatius Canavan, M.D., of Franklin Lakes, has been named by the Medical Society of New Jersey as Executive Coordinator for the Impaired Physicians Program. Dr. Canavan will begin his regular duties at Society headquarters on September 7, 1982.

Dr. Canavan was born in 1927 in Ridgefield Park. He served in the United States Naval Reserve from 1945 to 1946 as a hospital apprentice and pharmacist mate. After graduation in 1949 from St. Peter's College, Jersey City, he earned a medical degree in 1953 from Cornell University Medical College, New York. Dr. Canavan served a medical internship at Bellevue Hospital, New York, from 1953 to 1954, and a rotating internship at St. Joseph's Hospital and Medical Center, Paterson, from 1954 to 1955. Dr. Canavan remained at St. Joseph's Hospital and Medical Center as a Clinical Assistant in postinternship positions from 1955 through 1969. He served in a variety of capacities at the hospital, including: Director, General Practice Department; Consultant, General Practice Department; Chairman, Record Room Committee; Chairman, Review Committee; and Medical Director, Family Health Center.

In 1976, Dr. Canavan became the Chairman, Department of Community Medicine; as Chairman, he served on 13 committees, including, the Medical Board, the Medical Equipment Committee, the Impaired Physicians Committee, the Medical Education Committee, and the Critical Care Committee.

Dr. Canavan also served at Mt. Carmel Hospital, Paterson, as a staff physician, Medical Director, and Ad-

d there's more proof on the way!

will see the completion of the Multiple Risk r Intervention Trial (MRFIT)—a six-year, 0-patient study assessing the factors that rase risk of cardiovascular disease. For the agement of hypertension, the preferred 2 regimen in this study is reserpine-thiazide.

8, in a preliminary report presented to the emiology Section of the American Heart ciation (Dallas, Nov 1978), after 12 months trial, fewer patients (5.3%) treated with pine suffered depression than even the rated control group (7.7%)!

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ministrator of Medical Services from 1955 until 1981. His responsibilities at Mt. Carmel Hospital included hospital administration, medical staff supervision, and nursing services.

As Medical Director, Dr. Canavan had full responsibility for the detoxification and treatment of intercurrent medical problems for all admissions; this experience gave Dr. Canavan a national reputation in the field of alcoholism. In the 1960s, Dr. Canavan also served the Mt. Carmel Guild, Paterson, and became the Medical Director of the program for detoxification and residential therapy for male heroin addicts; he also played a part in the opening of Alpha House, the first residential facility for female addicts in New Jersey.

Dr. Canavan also maintained an active medical practice in Oakland from 1955; he serves the practice with limited hours today.

Dr. Canavan is a Diplomate of the American Board of Family Practice; he is a member of our Passaic County component and of the American Medical Society for Alcoholism; and he is a Fellow of the American Academy of Family Physicians.

In December, 1981, Dr. Canavan became Medical Director at the Passaic Alcohol Rehabilitation Treatment Services—an inpatient detoxification and rehabilitation center primarily for alcoholics but also for patients with mixed substance abuse.

Dr. Canavan has written and lectured extensively on the subject of alcoholism. He was designated as an authority in the field by the National Institute of Alcoholism of the Department of Health and Human Services.

Dr. Canavan has been an active member of the Impaired Physicians Committee of the Medical Society of New Jersey for the past several years; in 1980, he served as a delegate to the Baltimore meeting of the American Medical Association Committee on Impaired Physicians.

Scholarship Recipient

Joseph Koziol, of Elizabeth, a thirdyear medical student, has been named the recipient of a \$1,000 scholarship. The award is presented annually by the medical staff of Alexian Brothers Hospital, Elizabeth.

Koziol, who attends UMD-Rutgers Medical School, is a graduate of Roselle Catholic High School; he received a Bachelor of Science degree from Georgetown University.

This is the tenth year the medical staff scholarship has been awarded, and it is one of the few scholarships awarded by hospitals or their medical staffs to medical students.

Dr. Ervin Moss, Chairman of the scholarship committee, noted that Koziol worked as a volunteer at the hospital while in high school and also worked part-time as an aide in the Radiology Department and as a technician in the operating room while attending school.

In order to qualify, the applicant must be enrolled in a medical school and must have worked at Alexian Brothers Hospital during the year the award is given.

"The Medical Staff at Alexian Brothers Hospital established the scholarship to recognize the great amount of effort required to achieve a medical education and to demonstrate its con-

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Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.

PRECAUTIONS

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(especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss may cause digitalis intoxication. Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease or bronchial asthma and in those with a history; of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with: this agent.

cern for the astronomical costs of an education," Dr. Moss said.

Passaic Physician Elected to National Society Position

George Charles Peck, M.D., of Passaic, was elected Vice-President of the American Society for Aesthetic Plastic Surgery.

A surgeon of wide acclaim, Dr. Peck is recognized as a leader in rhinoplasty. He has been a teacher in the field for 17 years, including his current position at Columbia-Presbyterian Hospital, New York City. His private practice is in Clifton.

Unlike many of his peers who served as doctors during their military service, Dr. Peck was an enlisted man in the Army Medical Corps. Upon his discharge, he attended Johns Hopkins School of Medicine and University of Maryland for premed studies, interned at Kings County Hospital, Brooklyn, and had his residency in surgery at University of Baltimore Hospital, Mary-

land. His residency in plastic surgery was at Saint Barnabas Medical Center, Livingston, and Roswell Park Hospital, New York.

Dr. Peck is a member of our Passaic County component and the American Medical Association. does not provide for treatment of acute conditions.

Physicians may instruct their disabled patients to call the local office of the Division of Vocational Rehabilitation Services at 609-292-5987 for more information.

Vocational Rehabilitation Service

The New Jersey Division of Vocational Rehabilitation Services (DVRS) exists to enable disabled citizens to work, to become self-reliant, and to reduce their dependence on government and family support. DVRS provides the applicant a diagnostic evaluation including a general medical examination by his family physician and specialty examinations as required to determine the extent of the known disability as well as the presence of any other conditions and the need for treatment.

If the individual is found eligible for DVR services, physical restoration including medical or surgical treatment and physical therapy may be provided to correct or reduce the disability. DVRS

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Offices of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY—S.K. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Partnership or group. Available.

CARDIOLOGY—Mohammad Riaz, M.D., 853 Avenue Z, Brooklyn, NY 11235.

ADVERSE REACTIONS

Hydroflumethiazide

Skin-rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation.

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1 tablet b.i.d.

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Bottles of 100 and 1000 scored 50 mg. tablets.

References:

- Propranolol in the treatment of essential hypertension. Veterans Administration Cooperative Study Group on Antihypertensive Agents. JAMA 237:2303-2310, 1977.
- Five-year findings of the hypertension detection and follow-up program: I. Reduction in mortality of persons with high blood pressure, including mild hypertension. Hypertension Detection and Follow-up Program Cooperative Group, JAMA 242:2562-2571, 1979.
- The 1980 Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. Arch Intern Med 140:1280-1285, 1980.

BRISTOL"

Bristol Laboratories Division of Bristol-Myers Company Syracuse: New York 13201 Khyber (Pakistan) 1971. Board eligible. Group or partnership. Available.

Narendra T. Agrawal, M.D., 502-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Also, general internal medicine. Board eligible. Associate, partner, hospital-based clinic. Available.

Madhusudhan T. Gupta, M.D., 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Also general internal medicine. Board certified (IM). Solo, group, partnership.

FAMILY MEDICINE—Asha Garg, M.D., 133 Kearny Ave., Apt. 17, Kearny, NJ 07032. NHLM Medical College (India) 1970. Residency, Available.

Deborah A. Beiter, M.D., 44 Waterford Way, Fairport, NY 14450. SUNY-Upstate 1976. Board certified. Group or partnership. Available August 1982.

Railton Leonard Green, M.D., 64 Martin Drive, Harrington Park, NJ 07640. University of Cape Town (South Africa) 1959. Partnership or group. Available.

GASTROENTEROLOGY—Mathew K. Kandathil, M.D., 94 Village Lane, Branford, CT 06405. Grant (India) 1974. Also, general internal medicine. Board certified (IM). Group, partnership, associate. Available.

Muhammad A. Nyazee, M.D., 1650 Selwyn Avenue, Bronx, NY 10457. Also, general internal medicine. Board certified (IM). Solo/group practice, partnership, academic (gastroenterology). Available.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available

GENERAL PRACTICE—Samuel Saland, M.D., 125-F Galaxy, 7000 Boulevard East, Guttenberg, NJ 07093. Berne (Switzerland) 1934. Board certified (FP). Subspecialty, alcoholism (detoxification, treatment, rehabilitation). Full or part-tine, multispecialty group, associate, preferably in vicinity of Fort Lee or Guttenberg area. Available.

INTERNAL MEDICINE—Arthur C. Tutela, M.D., 132 Midland Place, Newark, NJ 07106. Bologna (Italy) 1974. Also, general medicine. Group, partnership, clinic, institution. Available.

Muhammad A. Nyazee, M.D., 1650 Selwyn Ave., Bronx, NY 10457. Nishtar (Pakistan) 1974. Subspecialty, gastroenterology. Board certified. Solo/group practice, partnership, academic (gastroenterology). Available.

Thomas A. Neef, M.D., P.O. Box 3249, York, PA 17402. Georgetown 1975. Board eligible. Solo, associate, group. Available.

Harry N. Brandeis, M.D., Ten Overlook Rd., Apt. 51, Summit, NJ 07901. Bologna (Italy) 1979. Board eligible. Group, partnership, solo. Available.

Narendra T. Agrawal, M.D., 503-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Subspecialty, cardiology. Board eligible. Associate, partner, hospitalbased clinic. Available.

Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Subspecialty, pulmonary medicine. Group or solo (hospital based). Available.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available

Melvin Polkow, M.D., 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Subspecialty, pulmonary medicine. Board certified (IM). Group, partnership, hospital based. Available.

Steven Fischkoff, M.D., 6792 Pyramid Way, Columbia, MD 21044. Pennsylvania 1976. Subspecialty, oncology. Board certified (both). Group or partnership. Available.

Frank Gentile, M.D., 2116 Trail 2, Apt. 9-K, Burlington, NC 27215. Bologna (Italy) 1973. Subspecialty, hematology and oncology. Solo or partnership. Available.

S. Srinivas, M.D., 7859 Riverdale Rd., Apt. 103, New Carrollton, MD 20784. Gandhi (India) 1973. Subspecialty, gastroenterology. Board certified. Solo, partnership, single-specialty group. Available.

Madhusudhan T. Gupta, M.D. 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Subspecialty, cardiology. Board certified. Solo, group, partnership. Available.

Nanjappa Ravi, M.D., Prel Gardens, Apt. 1D, Orangeburg, NY 10962. India 1970. Board eligible. Solo, group, partnership, emergency room. Available.

Vinod Kanbilal Shah, 507 6th St., Brooklyn, NY 11215. MP Shah (India) 1975. Board eligible. Group, solo, partnership. Available.

Jae O. Park, M.D., 9542 W. Pickwick, Taylor, MI 48180. Chonnam (Korea) 1969. Board eligible. Hospital based or group. Available.

Curtis A. Wushensky, M.D., 3437 Fifth Ave., Apt. 506, Pittsburgh, PA 15213. University of Pittsburgh 1979. Board eligible. Salaried, hospital, locum tenes, emergency room. Available.

Ellis R. Levin, M.D., 223 Pacific St., Apt. D, Santa Monica, CA 90405. Jefferson 1975. Subspecialty, endocrinology. Board certified. Group, associate, partnership. Available September 1982.

OBSTETRICS/GYNECOLOGY—Yvonne S. Thornton, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/fetal medicine. Board certified (both). Partnership or group (single specialty), Morris or Middlesex counties preferred. Available August 1982.

Ibrahim Beruti, M.D., 1236 Napoleon St., Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified. Solo. Available.

Gary S. Rosenberg, M.D., 245-20 Grand Central Parkway, Bellerose, NY 11426. SUNY-Downstate 1977. Board eligible. Group or partnership. Available.

Gary C. DeGrande, M.D., 201 Seeley Road, Apt. H-3, Syracuse, NY 13224. Guadalajara (Mexico) 1977. Board eligible. Private group practice. Available July 1983.

Judith A. Scheraga Stavis, M.D., 16 Everett Rd., Demarest, NJ 07627. Cornell 1972. Board certified. Group partnership, hospital, ambulatory clinic. Available.

OPHTHALMOLOGY—Shearwood J. Mc-Clelland, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia Physicians and Surgeons 1974. Board certified. Partnership or group. Available January 1983.

Michael Hostovsky, M.D., 4100 West 36th St., Minneapolis, MN 55416. Hadassah (Israel) 1972. Also, neuro-ophthalmology. Board eligible. Single or multispecialty group. Available September 1982.

Jasvinder Singh, M.D., 500 Central Ave., Apt. 702, Union City, NJ 07087. Lady Hardinge (India) 1970. Board eligible. Partnership, group, HMO. Available.

OTOLARYNGOLOGY—Arnold I. Charow, M.D., 6 Country Club Drive, Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.) Available.

Richard G. Shiffman, M.D., 8101 Camino Real, Suite C-318, Miami FL 33143. Tufts University. Board eligible. Group or partnership. Available.

PATHOLOGY—Donald J. MacPherson, M.D., 3 Highview Dr., Livingston, NJ 07039, Vermont 1948. Board certified (AP, CP, RP). Available.

S. A. Hadi, M.D., 50 S. Chillicothe St., South Charleston, OH 45368. Gandhi Medical (India) 1964. Board certified (Anatomic). Group. Available.

PEDIATRICS—B. R. Prasad Achanti, M.D., #310, 11135-83 Ave., Edmonton, Alberta, Canada 6G-2C6. Guntur Medical (India) 1975. Board eligible. Available.

Jogesh Dugal, M.D., 135-17 Coolidge Ave., Kew Gardens, NY 11435. Lady Hardinge (India) 1970. Special interest, child development. Board eligible. Group or partnership, Available August 1982.

Suraiya I. Alvi, M.D., 1234A Birch St., Fort Dix, NJ 08640. Hyderabad (India) 1960. Board eligible. Group, partnership, multispecialty group. Available August 1982.

Allan Gideon Plaut, M.D., 265-02 74th Ave., Glen Oaks, NY 11004. SUNY-Downstate 1977. Board eligible. Multispecialty group, partnership, prepaid health plan. Available.

PULMONARY DISEASES—Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Also, general internal medicine. Group or solo, hospital based. Available. Melvin Polkow, M.D. 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Also general internal medicine. Board certified (IM). Group, partnership, hospital based. Available.

K.J. Shah, M.D., 44-36 Kicham St.,

Elmhurst, NY 11373. G.S. Medical (India) 1976. Also, general internal medicine. Board certified (IM). Group or solo (hospital based). Available.

RADIOLOGY—Stephen Phillip Laufgraben, M.D., 19 Poplar Ave., Wheeling, WV 26003. University of Arkansas (1973) Board certified. Single specialty group, hospital based, private. Available.

SURGERY, GENERAL—Robert C. Kahn, M.D., 2516 North 4th St., Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available.

Lawrence W. Silvers, M.D., 1350 West Bethune Ave., Apt. 2002, Detroit, MI 48202. Albany 1976. Also, vascular surgery. Board eligible. Group or partnership, with medical school affiliation. Available.

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Milan (Italy) 1972. Also colon and rectal surgery. Group or partnership. Available.

Alan Berger, M.D., 10 Landing Lane, Apt. 1P, New Brunswick, NJ 08901. Temple 1976. Also, vascular surgery. Board eligible. Group or partnership. Available.

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Alan Berger, M.D., 10 Landing Lane, Apt. 1P, New Brunswick, NJ 08901. Temple 1976. Board eligible. Group or partnership. Available.

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Ramesh K. Chopra, M.D., 1920 S. First St., Minneapolis, MI 55454. Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available August 1982.

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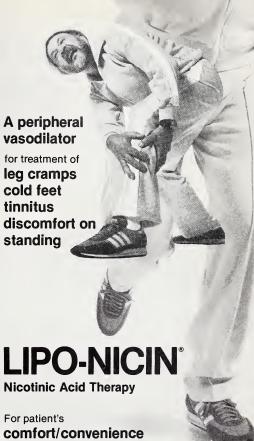
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Jacob Heyman, M.D., 271 Avenue C, Apt. 5-F, New York, NY 10009. Haifa (Israel) 1975. Board eligible. Solo, partnership, single or multispecialty group. Available.

Richard A. Chazkel, M.D., 201 East 25 St., New York, NY 10010. Hahnemann 1976. Board eligible. Group, solo, partnership. Available.

Tiido Kallas, M.D., 714 Parsons Rd., Ridgewood, NJ 07450. NY Medical 1965. Board eligible. Group, partnership. Available.



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LETTERS TO THE EDITOR

Microsurgical Treatment of Carpal Tunnel Syndrome

Dear Doctor Krosnick:

May 4, 1982

After having read the article, "Microsurgical Treatment of Carpal Tunnel Syndrome," by Dr. Hubschmann in The Journal, I was a bit perplexed. First, the only mention of the microscope was when a neurolysis was performed, if necessary. Second, the statement that "the microsurgical modification of the standard surgical procedure allows the procedure to be done under local anesthesia and provides for excellent cosmetic and functional results . . ." is misleading. Surgeons, for years, have done the standard carpal tunnel release with excellent results and superb cosmesis. Furthermore, I do not understand what the "microsurgical modification" of this procedure is. Is it simply looking at the nerve under the microscope? I fail to understand the point of this article.

(signed) Joseph H. Reichman, M.D. Assistant Professor of Surgery UMD-Rutgers Medical School

May 20, 1982

Dear Dr. Krosnick:

We have read Dr. Reichman's letter with interest and thank him for his comments. We regret that the salient points of the article were less clear than we had hoped.

The primary point of the article, "Microsurgical Treatment of Carpal Tunnel Syndrome," (April, 1982) was that carpal tunnel syndrome is a benign condition that has very simple and effective treatment. Delays in surgical decompression may cause unnecessary suffering or may lead to irreversible changes. The surgical release can be performed under local anesthesia with minimal morbidity.

We have not discussed the specific techniques employed, as this article was geared to a primarily nonsurgical audience. Nowhere in the article, however, did we claim that good results cannot be achieved by using techniques other than our own. On the other hand, having developed our current technique from those classically described, we feel that our modifications offer significant advantages.

It is understood generally that microsurgery means more than using the microscope for observation; several recent books deal with this subject in detail. We therefore will outline briefly the points that are pertinent to our article.

The use of magnification allows for minimal handling of the median nerve and for better identification of all the structures, including anomalies. The magnification also allows for a better identification of small bleeding points that are controlled easily with the use of bipolar cautery and, thus, the need for a tourniquet is eliminated. Only sharp dissection using a No. 15 blade is employed for most of the operation so that placement of scissors underneath the ligament with all the potential risks is avoided. The incision, in most cases, is confined to the palm only. This is possible because by using magnification and by avoiding the use of a tourniquet, the exact area of compression of the nerve can be identified by subtle change and, more importantly, by a reactive hyperemia that develops within seconds after the release of the nerve. Our results, to date, in over 50 patients, lead us to believe that this technique significantly has decreased the morbidity of this procedure without compromising its thoroughness.

We hope that we have answered most of the questions raised by Dr. Reichman. We are in the process of completion of a more extensive study on the subject that would deal with the surgical aspects in greater detail and we plan to present it in the near future.

(signed) Otakar R. Hubschmann, M.D. Abbott J. Krieger, M.D.

Competition in Medicine

April 26, 1982

Dear Editor:

In ancient (and recent times) there was a class/caste/guild of individuals whose chief function was to bewail progress; yearn for the nostalgic, better days of yesteryear; and sustain the popular, enriching comforts of the status quo.

We all are aware of the inevitability of the technical "dawn," i.e. CAT scanners, bioengineering replacement of parts, and other breakthrough technologies/therapies. No one is more grateful at their speedy deployment in a clinical patient-comforting setting. Yet, these same 1982-mode practitioners are distraught, hand-wringing, teeth-gnashing, Pavlovianally abhorrent of anything that appears to be a comparable advance in the administrative delivery of quality health care services. I, for one, am for competition. As an oriental philosopher said, "Let a hundred flowers bloom, let a thousand schools of thought contend."

I believe this is the direction in which our national government is (and should be) going. Let us in organized medicine not get left on the sidelines in planning and adapting to the increase in intrapractitioners, intragroups, and demographic-mandated competition.

Churchill L. Blakey, M.D.

CHEMOTHERAPY FOUNDATION SYMPOSIUM V

Innovative Cancer Chemotherapy for Tomorrow

November 10, 11, 12, 1982 Barbizon Plaza Hotel, New York City

Symposium Chairman: Ezra M. Greenspan, M.D.

Presented by The Division of Medical Oncology The Department of Neoplastic Diseases and The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY).

Registration Fees:

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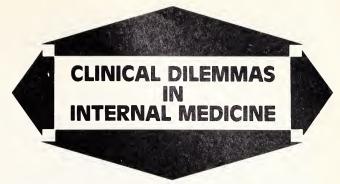
This program will focus upon the management of behavioral problems seen in adolescents. Anticipatory guidance, counseling, hypnosis and family and group therapy, as applicable to the primary care physician, will be the major focus of this symposium.

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For further information contact:







Wednesdays 4:00-7:00 P.M. October 13-December 22, 1982

COURSE DESCRIPTION:

This new course will focus on controversial clinical situations that confront the general internist. Each three-hour session will consist of case presentations in a specific medical subspecialty. The faculty will provide the rationale for each step in the diagnostic and therapeutic management of the cases. They will also present an overview of the current controversies regarding management that will be highlighted in written hand-outs.

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FOR FURTHER INFORMATION OR COURSE BROCHURES: NYU Post-Graduate Medical School 550 First Avenue, New York, NY 10016 (212) 340-5295 (24-hour telephone service)

NJ 7/82

CME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

ANESTHESIOLOGY

Sept

11 Advances in Pain Management 8 a.m.-5 p.m.—Resorts International Hotel, Atlantic City (UMDNJ-New Jersey Medical School)

NEUROLOGY/PSYCHIATRY

Aug.

- 3 Psychiatric Case Conference
- 10 7:30-9:30 a.m.—Trenton Psychiatric
- 17 Hospital
- 24 (Trenton Psychiatric Hospital
- 31 and AMNJ)
- 4 Child Psychiatry Case Conference

- 11 8:30-10:30 a.m.—Trenton Psychiatric
- 18 Hospital
- 25 (Trenton Psychiatric Hospital and AMNJ)
- 5 The New Antibiotics
- 12 Clinical Applications of the Dexamethasone Suppression Test
- 19 CAT Scan in the Diagnosis of Schizophrenia 12 noon-1 p.m.—Carrier Foundation, Belle Mead

(Carrier Foundation and AMNJ)

Sept.

- 2 Diagnosing Affective Disorders: Sleep Measurements
- 9 Phenomenology, Psychopathology, and Diagnosis of Schizophrenia
- 30 Management of Hypertension in 1982 12 noon-1 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)
 - Psychiatric Case Conference
- 14 7:30-9:30 a.m.—Trenton Psychiatric
- 21 Hospital
- 28 (Trenton Psychiatric Hospital and AMNJ)

- 8 Anxiety: Clinical Causes and Treatment 9:30 a.m.-4:30 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ) The Chronically III: Dilemmas and New Psychiatric Approaches
- 28 8:30 a.m.-4:30 p.m.—Center for Health Affairs, Princeton
- 29 8:30 a.m.-4:30 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

PEDIATRICS

Sept.

28 Juvenile Hypertension 8:30-10 a.m.—St. Joseph's Hospital, Paterson (St. Joseph's Hospital and Medical Center and AMNJ)

RADIOLOGY

Aug.

18 Nuclear Medicine Update 10:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ)

OBITUARIES

Dr. Chester B. Allen, Jr.

We have been notified of the death of Chester Boice Allen, Jr., M.D., an emeritus member of our Essex County component. Born in 1907 in Montclair, Dr. Allen was graduated from Harvard University in 1934. During his career, Dr. Allen was affiliated with The Mountainside Hospital, Montclair. Dr. Allen was a commander in the United States Navy from 1942 to 1946.

Dr. Jack R. Bevinetto

Jack Richard Bevinetto, M.D., of South Orange, died on April 22, 1982. A member of our Essex County component, Dr. Bevinetto was a recipient of MSNJ's Golden Merit Award. Born in 1902, Dr. Bevinetto earned a medical degree at LaValle University, Canada, in 1929. During his career, Dr. Bevinetto was associated with Clara Maass Memorial Hospital, Belleville, and Columbus

Hospital, Newark. He served on the Newark Board of Health for 48 years and was a member of the American Medical Association.

Dr. Carl F. Buechle

On April 25, 1982, Carl Frederick Buechle, M.D., of Glen Ridge, died. Born in 1913, Dr. Buechle earned a medical degree at Hahnemann Medical College, Philadelphia, in 1940. A member of our Essex County component, Dr. Buechle was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons and of the American College of Obstetricians and Gynecologists, and a member of the American Medical Association. During his career, Dr. Buechle was affiliated with Clara Maass Memorial Hospital, Belleville, The Mountainside Hospital and St. Vincent's Hospital, both in Montclair.

Dr. Orlo H. Clark

Orlo Holly Clark, M.D., an affiliate member of our Passaic County component, died on May 2, 1982. Born in 1909, Dr. Clark was graduated from the University of Rochester, New York, in 1936. Dr. Clark was a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the Academy of Medicine of New Jersey and of the American Medical Association. During his career, Dr. Clark was affiliated with Passaic General Hospital.

Dr. Elliot Fishbein

Word has been received of the death of Elliot Fishbein, M.D., a member of our Passaic County component. Born in 1905, Dr. Fishbein earned a medical degree at the University of Maryland in 1932. Dr. Fishbein was a member of the American Medical Association, a Diplomate of the American Board of Radiology, and a Fellow of the American College of Chest Physicians.

Dr. Bertram M. Koenig

Bertram M. Koenig, M.D., of Hawthorne, died on April 22, 1982, after a long illness. Born in 1907, Dr. Koenig was graduated from Hahnemann Medical College, Philadelphia, in 1930. A family practitioner, Dr. Koenig was affiliated with three Paterson hospitals: Paterson General Hospital, St. Joseph Hospital and Medical Center, and

Barnert Memorial Hospital Center. An emeritus member of our Passaic County component, Dr. Koenig was a member of the American Medical Association.

Dr. Benjamin M. Krugman

Benjamin Milton Krugman, M.D., a member of our Passaic County component, died on April 22, 1982, in Ridgewood. Born in 1908, Dr. Krugman was graduated from St. Andrew's Medical School, Scotland, in 1937. He was a family practitioner affiliated with Barnert Memorial Hospital Center, Paterson, for 35 years. Dr. Krugman was a member of the American Medical Association.

Dr. Arthur J. Ruccia

Arthur Joseph Ruccia, M.D., a member of our Essex County component, died on April 29, 1982. Born in 1913 in New York City, Dr. Ruccia earned a medical degree at the University of Bologna, Italy, in 1940, and completed an internship at St. Michael's Medical Center, Newark. Dr. Ruccia enlisted in the Army during World War II and served as a captain in the European Theatre; he earned the Bronze Star, the Purple Heart, and the Victory Medal. After his discharge, Dr. Ruccia set up a private practice in obstetrics and gynecology in Newark. During his career he was affiliated with St. Michael's Medical Center, Clara Maass Memorial Hospital, Belleville, and Saint Barnabas Medical Center, Livingston. Dr. Ruccia was a member of the American Medical Association, a Diplomate of the American Board of Obstetrics and Gynecology, and a Fellow of the American College of Surgeons and the American College of Obstetricians and Gynecologists.

Dr. Paul Slavin

Word has been received of the death of Paul Slavin, M.D., at the grand age of 93. Born in 1889, Dr. Slavin was graduated from the University of Kiev, Russia, in 1918. He practiced in New Jersey for over 50 years and was the recipient of MSNJ's Golden Merit Award. Dr. Slavin was a member of our

Essex County component and the American Medical Association.

Dr. Leonid L. Stefy

Leonid Ludwig Stefy, M.D., a member of our Atlantic County component, died on April 27, 1982. Dr. Stefy was born in Russia in 1902 and earned medical degrees at Tashkent Medical School, Russia, in 1932, and the School of Medicine of Zurich, Switzerland, in 1956. From 1958 to 1960, Dr. Stefy was a staff physician at Ancora State Hospital, Hammonton. Dr. Stefy was a family practitioner in Mays Landing from 1960 until his retirement in 1976. He was affiliated with Shore Memorial Hospital, Somers Point, and he was a member of the American Medical Association.

Dr. William B. Tomlinson

At the untimely age of 57, William Barrington Tomlinson, M.D., of Yardley, PA, died on May 3, 1982. A member of our Mercer County component, Dr. Tomlinson had a family practice in Yardley, PA. Born in 1924, Dr. Tomlinson was graduated from Washington University Medical School in 1949 and completed an internship at Philadelphia General Hospital in 1951. During his career, Dr. Tomlinson was affiliated with Mercer Medical Center, Trenton, and St. Mary Hospital, Langhorne, PA. He was a former Associate Professor of Family Medicine, Temple University, Philadelphia. Dr. Tomlinson was a member of the American Medical Association, a Diplomate of the American Board of Family Practice, and a Fellow of the American Academy of Family Practice.

Dr. Katherine West

Word has been received of the death of Katherine West, M.D., a member of our Bergen County component. Born in 1904, Dr. West was graduated from the University of Vienna Medical School, Austria, in 1930. During her career, Dr. West was affiliated with Englewood Hospital. Dr. West was a Diplomate of the American Board of Anesthesiology, a Fellow of the American College of Anesthesiologists, and a member of the American Medical Association.

BOOK REVIEWS

Current Pediatric Diagnosis and Treatment

C. Henry Kempe, M.D., Henry K. Silvers, M.D., Donough O'Brien, M.D. (eds). Los Altos, CA, Lange Medical Publications, 1982. Pp. 1106. Illustrated. (\$26.00)

This seventh edition of Current Pediatric Diagnosis and Treatment continues to represent what is probably the best synthesis of diagnostic and therapeutic quick information currently available on the market. Like all such texts, detailed pathophysiology, etiology, anatomical changes, and so on are bypassed in favor of concise descriptions and indications of significant differential diagnostic considerations.

As it so happens, my personal preference is for Current Pediatric Therapy which I feel provides more detail and clearer explanations for therapeutic purposes. However, I have remarkably few disagreements with this well-edited and well-written text. In particular, I was pleased with the fact that even the most technical areas or the most esoteric disorders are described in a clean style. Most references are up to date.

Avrum L. Katcher, M.D.

Drug Interactions in Anesthesia

N. Ty Smith, M.D., R.D. Miller, M.D., A Corbascio, M.D. Philadelphia, PA, Lea & Febiger, 1982. Pp. 351. (\$27.50)

The authors of Drug Interactions in Anesthesia have accomplished an important task with great success. They have organized and presented the major drug interactions that are encountered in anesthesia in a way that illuminates their mechanisms and effects; illustrates their detection and management through the device of interesting case reports; and organizes them into practical groups that allow an anesthetist to review a single therapeutic area with efficiency in order to be able to prevent reactions and to manage intelligently those that may occur during or after a particular operation. As stated in the book's preface, "Anesthesia requires, on the average, 6 to 10 agents and these are administered to patients who already may have been exposed to 20 or more drugs in the

preoperative period; the likelihood of drug interactions, for good or for bad, is great."

This book is so well written and so well organized, and contains such well-selected material of such broad application that it would be valuable not only for anesthetists but for medical students, residents, and internists.

Hyman W. Fisher, M.D.

Fundamental Cardiovascular and Pulmonary Physiology

Jerry R. Green, Ph.D. Philadelphia, PA, Lea & Febiger, 1982. Pp. 347. Illustrated. (\$20)

This somewhat overpriced text does a reasonably good job of explaining basic cardiopulmonary physiologic concepts, but it is woefully inadequate in the clinical arena. Only 2 of the 28 chapters and appendices deal with cardiovascular disturbances and pulmonary disturbances, and these are outdated and very incomplete. While the preface clearly indicates that the book is neither an up-to-date review of physiology nor a clinical text, I found it difficult to pinpoint its actual goal.

The first six chapters of Fundamental Cardiovascular and Pulmonary Physiology deal with the basics of cardiac physiology in a superficial, perfunctory manner that markedly is inferior to several current works such as Physiology of the Heart (Katz AM, New York, NY, Raven Press). Chapter Seven, "Disturbances in Cardiac Rhythm," is a treatise on cardiac arrhythmias consisting of three pages! On the other hand, the chapters devoted to cardiac mechanical performance are concise, but well done.

The section on vascular physiology also is readable, but the discussion of autonomic innervation and receptors needs to be reworked. The chapter entitled "Pulmonary Physiology" is thorough and much better accomplished than its cardiac counterpart.

The appendices are ponderous conglomerations of symbols, complicated integrals, and differential equations. Though there are numerous figures,

nearly all are transplanted from elsewhere.

While Fundamental Cardiovascular and Pulmonary Physiology may be of ancillary value to the novice student, I cannot recommend it to the practising physician.

Edwin L. Rothfield, M.D.

Physician's Handbook

Marcus Krupp et. al. Los Altos, CA, Lange Medical Publications, 1982. Pp. 774. (\$12)

This 20th edition of the *Physician's Handbook* continues a long history of compact, pocket-sized, well-composed, and useful medical information. This reviewer had written on a previous edition of this old friend and the feeling remains the same. Its practicality has been proved over the years and its value seems to endure.

There have been a few changes in this new edition-all worthwhile. Now there are chapter numbers on left pages and titles on right pages for easy identification and location. Type heading size is larger and clearer. Thirty-four chapters are offered, same as before, and two new foreign editions are available: a Japanese and Serbo-Croatian, added to the previous Italian, Spanish, Polish, and Portuguese. This handbook summarizes and charts all laboratory procedures for confirming diagnoses. It includes pathology, biochemistry, microbiology, serology, epidemiology, radiology, and therapeutics.

Some subjects have been rewritten and improved, such as: "Outlines of History Taking and Physical Examination," which is clear, concise, and thorough; "Neurology," including CAT scanning and brain imaging; "Cardiology and Lung," discusses invasive and noninvasive methods of imaging and 2-D echocardiography, and pulmonary function testing has been updated; and "Radiosotopes," including the latest clinical applications.

Appendix and index are complete and easy to follow. For the price and value received, the book is recommended for all health scientists, whether student, nurse, or practitioner.

Harry M. Poppick, M.D.

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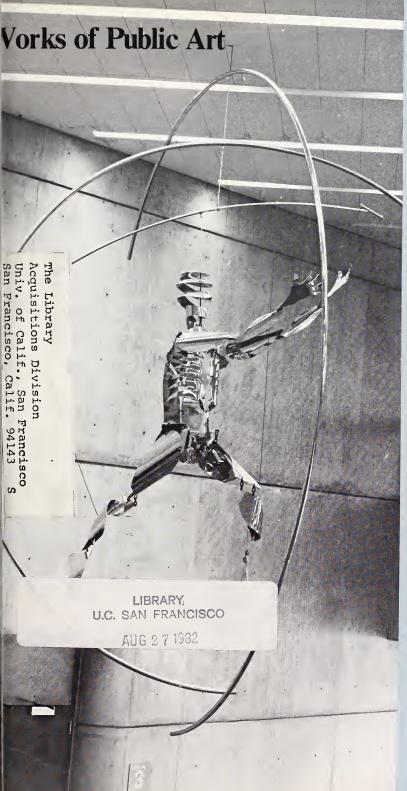
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Table of Contents Page 628 Send this coupon for no-obligation information of the savings under the Medical Society of New Jersey Endorsed Insurance Plans

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CONTENTS

633 PROFESSIONAL LIABILITY COMMENTARY

EDITORIALS

- 641 Physician Advocates for the Mentally III
- 641 Dr. Formica and Dr. Gellene Head State Organizations
- 642 Works of Public Art

ARTICLES

- 647 Comparative Study of Two Nocturnal Penile Tumescence Monitors Jose F.J. Leyson, M.D., and Ryland B. Powell, M.S.W., East Orange
- 653 Triplet Pregnancies: Experience With Four Sets J.R. O'Neal, M.D., M.D. Horn, M.D., R.R. Messick, M.D., Willingboro

REVIEW ARTICLES

- 657 New Jersey Bugs—Reactions in People Richard S. Berger, M.D., and Christopher M. Papa, M.D., New Brunswick
- 666 Global Review of Intrasplenic Pancreatic Pseudocysts N.K. Cheung, M.D., A.Z. Najem, M.D., N.P. Myneni, M.D., R.C. Malfitan, M.D., Newari

CASE REPORTS

- 675 Localization of Gastrointestinal Bleeding With Technetium 99m Sulfur Colloid Scintigraphy
 - J.A. Parrella, M.D., L.J. Warshauer, M.D., D. Rothman, M.D., Red Bank
- 680 Case of Turcot Syndrome: Dilemma Resolved Donald Rothman, M.D., Chen Pang Su, M.D., Nuri M. Kalkay, M.D., Holmdel
 - 81 Commentary Benjamin F. Rush, Jr., M.D., Newark

THERAPEUTIC DRUG INFORMATION

- 683 New Drugs: Part Three
- 686 PEDIATRIC BRIEFS

WHAT IS YOUR OPINION?

688 Who's Afraid of the Big, Bad Medical Assistant?

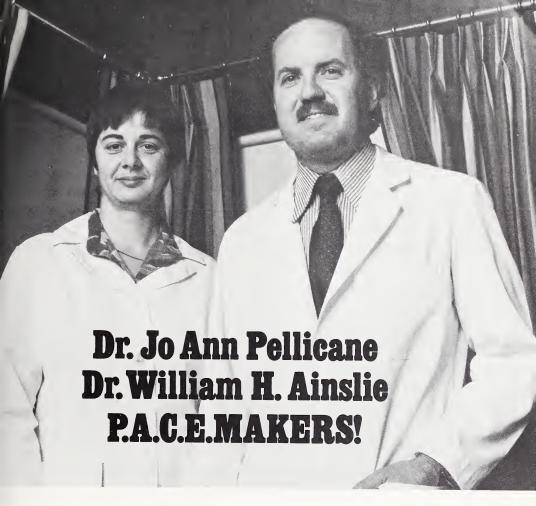
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DOCTORS' NOTEBOOK

- 689 Trustees' Minutes: May 17, 1982
- 690 UMDNJ Notes
- 91 MSNJ Auxiliary
- 691 Blood Banking
- 692 Physicians Seeking Location in New Jersey
- 694 LETTER TO THE EDITOR
- 694 PERSONAL ITEMS
- 697 CME CALENDAR
- 699 OBITUARIES
- 701 BOOK REVIEWS



On The Cover: On the campuses of our medical schools we are finding works of public art. The purpose of such artworks is to give the student, the physician, and the visitor a heightened sense of the environment and to display the importance and value of incorporating fine art into the life of the medical profession. Read the editorial on page 642. Cover photograph by Dr. Martin Levine, Media Center, UMDNJ-New Jersey Medical School, Newark.



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- Antimicrob Agents Chemother., 8:91, 1975.
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Additional information available the profession on request from Eli Lilly and Company, Indiana 46285. Eli Lilly Industries, Inc. Carolina, Puerto Rico 00630

Physician Insurers Leading The Way*

he Physician Insurers Association of America (PIAA) today has 29 member companies, and as we begin our sixth annual meeting, it is assuring to note that our growth continues and new companies continue to join our ranks. Of our membership, 4 companies began operation in 1975, 8 companies began operation in 1976, 3 companies began operation in 1977, 4 companies began operation in 1978, 2 companies began operation in 1979, 3 companies began operation in 1980, and 3 companies began operation in 1981; this year we have welcomed Colorado and Georgia.

Impressively, the number of our policyholders has continued to grow, and whereas at the end of 1981, we insured over 106,000 physicians, I can tell you that as of today, because of intrinsic growth and the addition of two new companies, PIAA companies now insure over 110,000 physicians. This represents 43 percent of the total available market.

Our combined premiums now exceed 600 million dollars. Demonstrating our growth in total assets which were almost 2.4 billion dollars at the end of 1981, because of inherent growth and two new companies, the total combined assets of all PIAA companies now exceed 2.5 billion dollars.

So, we physician insurers have grown progressively in size, in the number of insureds, in the number of premium dollars, and in our combined assets. We are larger, stronger, more productive, and more effective than we ever have been. We have a viable, vibrant, and improving association. As noted by the continual addition of new companies, there is expanding interest in this novel concept of physicians solving their own insurance problems.

Our future should look bright; our potential almost unmited.

And yet, we all recognize storm clouds above and on the norizon.

More accurately, our future would look bright if condiions within the professional liability industry were stable and if we could count on stability in the near future. We know they are not and we have no reason to expect stability.

We are too well aware that the number of claims again is ising, that the size of settlements is enlarging, and that our nvestment income (which for many of us has meant survival yy offsetting underwriting losses) has an uncertain future. The problems of the 1970s are with us once more, recycling, but this time at a higher and more dangerous level.

Understandably, we are apprehensive and concerned bout the future. Is this apprehension and concern justified? s it based on fact?

Last fall, the surgeons of the country (a group vitally nvolved in professional liability) reported to the Governors of the American College of Surgeons that, for the first time ever, professional liability and the ability to insure against it were their most serious and worrisome problems. The highly publicized National Association of Insurance Commissioners report of closed claims of 128 insurers from 1975 to 1978 showed the average award rose in this 3½-year period an average of 70 percent. The average time from a reported incident to final disposition rose from 37 to 46 months, further increasing costs. Since 1978, these dramatic increases not only have continued, they have become more dramatic! The combination of an increasing number of claims, easy access to settlement, larger verdicts, and continuing inflation simply add up to the fact that the professional liability crisis has not been controlled, but continues in great force.

Rather than being complacent over our successes to date, we must be concerned with and feel threatened by the future.

I find it a paradox that at a time when Americans are enjoying not only the best health care in the world but the best care that mankind ever has experienced, it is only in America that those who are responsible for this exceedingly high-quality care are plagued with liability problems. It is only the American physician who must—at great cost, effort, and some harassment—protect the hand that heals, comforts, and soothes society for fear, that in appreciation, the very hand may be bitten—hard! But such are the times in which we live and work.

I am convinced that in spite of a lack of understanding and a lack of appreciation on the part of the public and those we serve, our posture should not be one of anger or frustration, but rather one of calm, thoughtful planning on what we can do to change the situation in which we find ourselves.

Actually, physician insurers already have done a great deal that is of infinite benefit to society and to our colleague insurers. Since 1975, we have solved the problem of availability, we have stabilized the market, we have made this essential coverage affordable, and we have brought competition into the market—accomplishments which benefit all physicians, whether insured with us or not.

Let me list for you what I consider some of the specific physician insurer strengths or values that our companies possess. I use the term values because not all of these are true innovations; not all are done exclusively by us, and some represent improvements or modifications of already-existing methods, but they all—in my view—represent ways in which we are leading the way.

^{*}This paper was presented by James E. Davis, M.D., President, Medical Mutual Insurance Company of North Carolina, at the Sixth Annual Physician Insurers Association of America meeting in Williamsburg, VA, on June 3, 1982.

- 1) Our unique rapport and close cooperation between physicians and the physician insurer are two of our strongest assets.
- 2) The degree of physician involvement, not only in the direct operations of our companies but also in assisting these companies by supplying expertise in all areas of medicine, has been invaluable.
- 3) Almost without exception where there are physician insurer companies, there have been legislative reforms. A current compendium of the status of legislative reforms throughout the country has been supplied to each PIAA company.
- 4) In the area of claims, there are many things being done by our companies which will result in holding down costs: a) structured settlement or the paying out over a specified number of years in equal amounts, rather than in a lump sum, helps to prevent the total sum being dissipated in the early years, often leaving the recipient penniless and dependent on others; b) advance payments are an innovative approach in that where clearly a medical error has occurred the company steps in and assumes the costs of medical care



James E. Davis, M.D.

and other expenses, to prevent additional financial burdens on the individual and resulting in improved rapport and cooperation; c) most physician insurance companies take a very strong defensive stand and refuse to pay nonmeritorious claims on any basis; and d) physician insurers bring a degree of adjuster expertise, which other companies cannot approach—our adjusters are specialists dealing solely with medical problems.

- 5) Through PIAA, national studies are being conducted.
- 6) By having local boards and local management, our physician insurer companies have a close and keen awareness of the local situation and trends and are able to adjust internal policies and programs to reflect these trends. We are better able to keep rating more appropriately, than can our commercial competitors.
- 7) Our companies, offering primarily one line of coverage, are able to deliver a very high quality of service. I am convinced that our companies, serving a specified clientele (who actually are our employers), have a much greater

commitment to quality service than is elsewhere available.

- 8) Our companies do exchange ideas and, to some extent, facts as is evident in work shops and programs. And yet, I feel strongly that we need to do much more of this, as I will later elaborate.
- 9) PIAA companies almost universally reflect a rapid adaptability to change. We are not restrained by an organization that must adopt national policies, a long and timeconsuming process, but rather we have the ability to and actually do adapt to local situations well and quickly.

10) Without exception, all of our companies are providing risk management programs or specific efforts. The results of these various efforts are being monitored closely and will be reported back to PIAA in order for us to evaluate the most effective of these many efforts.

- 11) Of extreme importance to our companies are the greatly reduced ratios that we enjoy, in comparison with commercial companies. Obviously, this means that a greater percentage of the physician's premium dollar is available to satisfy losses and hopefully to reduce the cost of the premium.
- 12) I am convinced that all of this adds up to the fact that we better communicate, better educate, and better service our insureds than is possible by any other company or groups of companies.

Modestly, one can say that we and our companies are busy—busy working to improve our efficiency, to brighten the future, and better to assure our continuing success. And yet, clearly, more needs to be done.

What more can and should be done? May I offer a few suggestions?

First, I admit a strong aversion and sensitivity to the word malpractice. Invariably, this is interpreted as representing an improper or negligent act. And yet, most of the cases which you and I, lawyers, and the courts discuss as malpractice represent neither impropriety nor negligence.

Certainly, physicians, at times, make mistakes and do act improperly and negligently. When they do—or when they are thought to have done so—we should speak of malpractice or alleged malpractice. However, the great majority of cases in which there is disagreement between the physician and his patient, for which the physician is said to be liable, result either from a biologic variance, the obtaining of a less-than-ideal result, an act of God, or patient malcontentment. These cases should be called just what they are—professiona liability cases—and not malpractice. We do ourselves continued disservice by perpetuating the term malpractice in its generic sense to cover all of these types of problems, no simply those relating to negligence.

Secondly, we must remove the stigma, both in the eyes of the profession and of the public, from a physician being succover a professional liability matter. In this litigious society suits of all sorts are commonplace and ours should no receive special public attention or notoriety.

We know that the better-trained physician (as denoted by board certification) is sued more often than his less well trained colleague. The law speaks definitively about injury to the patient as being cause for redress. Modern medical practice, as we become more invasive of the human body and consequently more effective, quite often involves the deliberate injury of the patient. The surgeon necessarily inflict an injury with each incision. By definition, then, the more extensive the surgery the more extensive the injury and injurpurposely inflicted. Paradoxically, it is the physician who i professionally qualified to medically risk the most for the

patient who is most likely to be sued by the patient. The very fact that insurance premiums are highest for specialties such as surgery, obstetrics-gynecology, anesthesiology, and orthopedics indicate that medical risk rather than medical recklessness is the true issue. Since the best of us is fallible, since we cannot win all our risks, why then should we be intimidated or embarrassed when we do our best and still remain imperfect?

Thirdly, we must change the public attitude towards medicine. Rather than accepting the accusations that we are less caring, more economically oriented, less approachable, and less available than our predecessors, we constantly must remind society that it has been our generation of physicians that has increased life expectancy, vastly improved the quality of life, eradicated plagues and epidemics, learned to cure many types of cancer, and largely controlled infectious diseases. How can this magnificent effort now be found not good enough? Why must the physician, all of a sudden, be the guarantor of the good health of everyone? As has been pointed out, it is not a question of suddenly discovering a bunch of bad doctors treating good people badly in bad hospitals. It is because bad laws are being interpreted and exploited by a small group of bad lawyers. Also, it is because the new consumerism attitude fostered by some suggests that every adversity in life is someone else's fault and must be paid for. We, unjustifiably, have been made the bad guys and we must fight back to correct this-and the record is on our side.

Fourth, we must extend—widely and vigorously—our education efforts, to both the profession and to the public.

At every level of our medical educational system we constantly must educate and reeducate physicians and physicians-to-be, so that they adopt a model of practice which exposes them least to the risk of liability problems. Just as continuing medical education is good for and required of the practicing physician, continuing liability education must be required of all who continue to insure their practice against such suits. This we can and must enforce.

It is our responsibility to educate the people, not only to a better understanding of what the real problems are but also to the unquestioned truth that it is they (and they alone) who must pay the ever-rising price of allowing this problem continually to enlarge. Just as we are educating the public to more self-care and more responsibility for their own health, we must be educating them to assume more responsibility for helping to prevent incidences that may lead to liability problems and that will lead to greater costs—their costs!

We must convince the public that there must be a close partnership between physicians and the people to control the root causes of professional liability matters and that neither of us can afford an adversarial relationship. Mutual benefits only can result from close cooperative effort. The medical profession has long said that this is not just a medical problem, not just a professional matter, but truly a societal problem involving us all, and we must become much more convincing when we repeat this. Many of us were very favorably impressed with what was accomplished during the 1975-1976 crisis when the public (including the media, the community, governmental leaders, and legislators) were brought into our conferences and into our confidences. Because everyone, at that time, sensed the critical nature of the issues, the problems were accepted as societal and collective best efforts were put forward. We once again must involve the public in every way possible.

Fifth, we must better train physicians how to cope with a

professional liability suit. Certainly removing the stigma and better public acceptance of such matters will help to make this less of a psychological disaster for the physician, but we still must help him to help himself through such trying times. Lawyer Marc Mandell published "Ten Commandments for Defendant-Doctors" or "A Lawyer's Advice to Furious, Injured Physicians Accused of Malpractice." Briefly, these commandments are:

- I. Thou shall not communicate directly with the plaintiff's attorney. Don't call up the plaintiff's attorney to say what you think of him or her. The attorney already knows and doesn't care.
- II. Thou shall not discuss the case in hospital corridors. You can't be sure who will be listening and who then will be talking—nothing travels faster than news of a malpractice case.
- III. Thou shall not communicate directly with the plaintiff. Once the claim has been filed, the time to offer explanations is over.



James E. Davis, M.D.

IV. Thou shall not discuss the case with reporters. A malpractice suit is a physician's headache but a reporter's delight. You can be sure any remarks you make will be distorted, misquoted, or taken out of context.

V. Thou shall not alter the patient's record in any way. The worst thing you can do once a claim against you has been filed is to alter the patient's record. The plaintiff's attorney already has a copy of the original chart and will be quick to discover any changes you have made.

VI. Thou shall not covet thy neighbor's settlement. Defendant-doctors often suffer from "the settlement syndrome," the desire to learn how cases against other doctors have been

resolved. Just as each patient is treated differently, so must each law suit.

VII. Thou shall not get legal advice on the golf course. Legal advice given on the golf course is just as useful as medical advice given on the golf course.

VIII. Thou shall not quarrel with the plaintiff's attorney while testifying. A courtroom is a trial attorney's home field, not yours. The less you say, the less likely you will be to help the case against you.

IX. Thou shall not worry about countersuing the plaintiff for bringing what thou feels is a frivolous action. Successful countersuits by physicians are as prevalent as cases of tsutsugamushi fever in New England.

X. Thou shall not mistake thyself for a trial lawyer. It may be hard to believe, but your attorney probably knows more about the court system and trial work than you do.

Sixth, we must continue to work for legislative changes to make the system more equitable. As Dr. James Todd reminded us last year at this time, 400,000 physicians cannot support the demands and expectations of society. Many of the legislative accomplishments of the 1975-1976 era already have melted slowly away.

Basically, a proper legal definition of malpractice that separates the unhappy result or the mishap, which is not the fault of the physician or hospital, from incompetence and negligence is needed badly and would be invaluable. One suggested definition declares malpractice to be the occasion "when a patient suffers harm in a treatment situation through outright incompetence or gross negligence, or if, after a mistake is made, no proper remedial action is taken in an appropriate time."

Many other legal changes such as reasonable statutes of limitation, collateral source, structured settlements, screening panels, arbitration, and the elimination of punitive damage from civil suits need to be written into our state laws. Unless we undertake to see that they are included or that they are not removed from already existing laws, no action will be accomplished. Certainly, the plaintiff lawyers are working feverishly to see that we do not accomplish this!

How then, do we accomplish all these things?

I have no pat answers, and it would be presumptuous of me to suggest that I do. I raise these issues with hope and prayer that we will address them—in depth.

I am very confident that within our association, we have the talent, the expertise, and the dedication to move forward towards finding ways to satisfy these needs and towards posturing ourselves in good position to meet whatever challenges the future will bring.

But we must do it together! Our fragmented and independent ways have not and will not be enough!

Though I propose no ready-made answers, I do suggest that already we have in our possession the mechanism that will lead us to the answers and to the answer to future problems.

I make a special and a fervent plea that we resolve to make this association a true federation of physician companies in the strongest sense of the word.

Drawing an analogy from our national history, which we can sense and feel so strongly about us in Williamsburg, our forefathers, as you recall, found that a loose confederation of states was ineffective and not enough. We now must be willing to cast our fortunes and futures together, develop strong group leadership, become truly interdependent, develop substantive programs of mutual benefit, freely and willingly exchange information and wisdom regularly, and believe in and function as a true confederation of companies.

Just as medicine must have a strong national organization—the American Medical Association—and component state and county societies all operating in an interdependent and mutually supportive fashion, the time has come for organized physician insurers to adopt the same model.

We have matured! Now we have the strength and we have constituency support. We can procure the resources to make this a reality.

I sincerely hope that we will request our board immediately to begin planning such an organizational structure, utilizing all other advice, counsel, individuals, and talents which they find helpful, and to report back to us, definitively, as soon as possible.

To do less—in my view—will be to miss a valuable opportunity—and truly will leave our future in doubt.

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Please see Brief Summary of Prescribing Information on following page.



BRIEF SUMMARY

propranolol hydrochloride (INDERAL®) and hydrochlorothiazide

BRIEF SUMMARY
(FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR.)

INDERIDE

BRAND OF
propranolol hydrochloride (INDERAL*)
hydrochlorothiazide
and hydrochlorothiazide
hydrochlorothiazide
propranolol hydrochloride (INDERAL*)

25 mg 80 mg 25 mg

40 mc

WARNING: This fixed combination drug is not indicated for initial therapy of hyperten-sion. Hypertension requires therapy titrated to the individual patient. If the fixed combi-nation represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension is not static, but must be reevalu-ated as conditions in each patient warrant.

INDICATION: INDERIDE is indicated in the management of hypertension. (See boxed

INDICATION: INDERIDE is indicated in the management of hypertension. (See boxed warning)
CONTRAINDICATIONS: Propranolol hydrochloride (INDERAL*): Propranolol hydrochloride scontraindicated in: 1) bronchial asthma, 2) allergic rhintis during the pollen season; 3) sinus bradycardia and greater than first degree block, 4) cardiogenic shock, 5) right ventricular failure secondary to puriomary hypertension, 6) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarryhymmercealdegistive heart failure (see WARNINGS) unjess the failure is secondary to a tachyarryhymmercealdegistive fixed tallure (see WARNINGS) unjess the failure is secondary to a tachyarryhymmercealdegistive fixed tallure (see WARNINGS) unjess the failure is secondary to a tachyarryhymmercealdegistive fixed tallure personstitutive to the sort of the substance of the secondary to a tachyarryhymmercealdegistive fixed the presensitivity to this or other sulfonamide-derived drugs.
WARNINGS: Propranolol hydrochloride (INDERAL*): CARDIAC FAILURE: Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta blockade always carnes the potential hazard of further depressing myocardial contractility and precipitating cardiac failure. Propranolol acts selectively without abolishing the inotropic action of digitals on the heart muscle wing digitals; the postive instead of myocardiac on digitals is not the heart muscle wing digitals; the postive offices of progranolal and digitals are additive in depressing AV conduction.

IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure. In rare instances, this has been observed during propranolol therapy Therefore, at the first sign or symptom of impending cardiac failure, patients should be fully digitalized and/or given a durient, and the response observed diveng propranolol therapy therefore, at the first sign or symptom of i

In PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocard infraction, following abrupt discontinuation of programoid therapy. Therefore, the design and the patient carefully monitored. In addition, we may be proposed to be graduated and the patient carefully monitored. In addition, we propose the proposed programoid is planned the opposition of the patient carefully monitored. In addition, we may be considered to angina pectors, the patient should be cautioned to therapy surface the patient should be cautioned to therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute programoid therapy and take other measures appropriate for the management of unstable angina pectors. Since coronary afterly desase may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given propranolol for other indications.

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use have not been adequately appraised. Special consideration should be given to proprano lois potential for aggravating congestive heart failure. Propranoloi may mask the clinical signs of developing or continuing hyperthyroidsmo in complications and give a false impression of every provider of the proprainol may have a false in the proprainol may be approved in the proprainol may also approved in the proprainol may form the same of the proprainol of some proprainol of the proprainol

tests IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranoiol, the tachycardia was replaced by a severe bradycar-dia requiring a demand pacemaker in one case this resulted after an intial dose of 5 mg

dia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranoloi.

IN PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of pheochromocytoma, propranoloi should be withdrawn 48 hours prior to surgery, at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emergency surgery, since propranoloi is a competitive inhibitor of beta-receptor agonists, its effects can be reversed by administration of such agents, e.g., suportorenol or levarterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has also been reported.

IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONC BRONCHTIS, EMPHYSEMA), propranoloi should be administered with caution since it may block bronchoditation produced by endogenous and exogenous catecholamine stimulations of heat exercitors.

block bronchodilation produced by endogenous and exogenous catecholamine simulation of beta receptors.

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Thiazides may add to or potentiate the action of other antihypertensive drugs. Potential

tion occurs with ganglionic of peripheral adrenergic blocking drugs. Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma. The possibility of exacerbation or activation of systemic lupus erythematosus has been

reported:
USE IN PREGNANCY: Propranolol hydrochloride (INDERAL*): The safe use of propranolol in human pregnancy has not been established. Use of any drug in pregnancy or
women of childbearing potential requires that the possible in risk to mother and/of refus be
weighed against the expected therapeutic benefit. Embryotoxic effects have been seen in

animal studies at doses about 10 times the maximum recommended human dose.

Hydrochlorothiazide: Thazides cross the placental barrier and appear in cord blood. T use of thazides in pregnant women requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jauncies thrombocytopenia, and possibly other adverse reactions which have occurred in the adi. Nursing Mothers: Thiazides appear in breast milk. If the use of the drug is deemed essential, the patient should stop nursing.

PRECAUTIONS: Propranolol hydrochloride (INDERAL"): Patients receiving catecho amine-depleting drugs such as reserpine should be closely observed if propranolol is a ministered. The added catecholamine blocking action of this drug may then produce are excessive reduction of the resting sympathetic nervous activity. Occasionally, the phramicologic activity of propranolol may produce thy potension and/or marked bradycardiare sulting in vertigo, syncopal attacks, or orthostatic hypotension. As with any new drug given over prolonged periods, laboratory parameters should be observed at regular intervals. The drug should be used with caution in patients with impaired read of replate brocked determination of serum electrolytes in detect possible where the processing parenteral fluids. Medication such as digitalis may als influence serum and rune electrolyte determinations are particularly important when the patient in yoming excessively or receiving parenteral fluids. Medication such as digitalis may als influence serum electrolytes. Warning signs, irrespective of cause are dyness of mouth thirst, weakness, lethargy drowsiness, restlessness, muscle pairs or cramps, muscular tique, hypotension, oliquina, tachycardia, and agastrointestinal disturbances such as rais eas and vomiting.

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Interest may decrease serum PBI levels without signs of thyroid disturbance.
Calcium excretion is decreased by thiazides Pathologic changes in the parathyroid
gland with hypercalcema and hypophosphatema have been observed in a few patier
on prolonged thiazide therapy. The common complications of hyperparathyroid small
renal lithraisis, bone resorption, and peptic ulceration, have not been seen. Thiazides
should be discontinued before carrying out tests for parathyroid function.

ADVERSE REACTIONS: Propranolol hydrochhoride (MacCk, hyporanos) may be a complication of the progression progr

hypersensitivity purpura photosensitivity rash, urticaria, necrolizing angitis (vasc scutaneous vasculitis), lever respiratory distress including pneumonitis, anaphylacic. (In other hypergycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restleness, transient blurred vision.



Physician Advocates for the Mentally III

The March, 1982, issue of The Journal contained two important items that should be highlighted for our membership. The editorial by Robert S. Garber, M.D., entitled "Discrimination Against the Mentally Ill," described the misconceptions and unfounded fears of the public leading to rejection and discrimination toward this unfortunate segment of our citizenry. This discrimination occurs despite the efforts of many people and many agencies that work to prevent the mentally ill person from exclusion in our social order. The second article by D. Barton Stevens, M.D., entitled "The State Institution Patient in the General Hospital Setting—A Special Population," described his 30 years as surgical consultant to a specific public institution which has had several missions, i.e. special care for seizure disorders, a neuro-psychiatric institute actively engaged in care for the mentally disabled and study into causes for this malady, and, more recently, a school for the mentally retarded. I am certain that his diagnostic and surgical acumen were tested severely on many occasions, as were the patience and understanding of the staff of the community hospital wherein he exercised his surgical talents.

These publications, though distinctly different, do have a common denominator; the articles demonstrate that the systems of private medicine and public medicine, at a certain point, do fuse. The Department of Human Services of the State of New Jersey for some time has been in the process of "normalization" or "de-institutionalization." Instead of "warehousing" people in its mental health hospitals and in its schools for the mentally retarded, the Department of Health has endeavored to provide active, aggressive programs for care, habilitation, and rehabilitation. This process begins in the institutional setting and gradually is transferred to the community where the majority of physicians work. Through a system of community modes, social service guidance, and correlation of community services (including crisis intervention), the vast majority of the mentally ill or developmentally disabled persons are able to accommodate. In very many instances, they become productive members of society. It is unfortunate that the wanderings of a visible few overshadow the invisible majority who do return to normal life and productivity. And what difference should it make if, as in any chronic illness, a member of this latter group must return to the public institution for aid in reestablishing a remission? Physicians are faced with the hospital readmission issue in the daily care of nonpsychiatric, nondevelopmental disability problems, are they not?

The concept I am trying to convey is that what previously have been considered medical-surgical problems of public institutional care gradually are becoming problems of the private sector. The acute medical and surgical illnesses, until just a few years ago, that routinely had been treated in the public institution, now are transferred to the community hospital(s) in proximity to it, as these hospitals are fully aware. This assures an efficient use of sophisticated, costly equipment and the trained personnel required to operate it. It also effects better utilization of scarce nursing and paramedical services, and, of course, the high quality of skilled physicians in the myriad of high-technology subspecialties representing today's medicine. The patients, residents, and clients of the Department of Human Services of the State of New Jersey are entitled to all of these whether they are in an institution or in the community.

What can we as physicians do to allay Dr. Garber's concern and to emulate Dr. Stevens? For Dr. Garber, we can act as a positive catalyst in the community in which we live and work to support the concept of a return to normal living for the person treated for decompensated mental illness. To emulate Dr. Stevens, we can learn more about those special problems of the mentally ill or retarded, display a willingness to accept them as patients once released to the community, and support those good people and agencies that strive to better their lives. Let us become physician advocates in their behalf.

Martin Epstein, M.D.
Chief Medical Consultant
Department of Human Services of the State of New Jersey

Dr. Formica and Dr. Gellene Head State Organizations

The Medical Society of New Jersey and The Academy of Medicine of New Jersey have elected women to leading executive positions—a first for the state organizations.

MSNJ elected Palma E. Formica, M.D., as Chairperson of the Board of Trustees and AMNJ elected Rosemary A. Gellene, M.D., as President.



Palma E. Formica, M.D.



Rosemary A. Gellene, M.D.

Palma Elizabeth Formica, M.D., of New Brunswick, was appointed to a one-year term as Chairperson of the Board of Trustees of MSNJ.

Born in 1928, Dr. Formica was graduated from the University of Rome in 1953. She completed an internship at Queens General Hospital, New York.

A family practitioner, Dr. Formica is a member of our Middlesex County component and of the American Medical Association; she is a Diplomate of the American Board of Family Practice. Dr. Formica has served as President of the Middlesex County Medical Society.

Dr. Formica is Chairperson of the Committee on Medical Student Loan Fund; she is a 1982 Alternate Delegate to the American Medical Association; and she is a member of the Committee on Finance and Budget.

In 1976, Dr. Formica was the recipient of the physician's recognition award, given by the American Medical Association

Dr. Formica is affiliated with St. Peter's Medical Center, New Brunswick, where she is Medical Director, Department of Family Practice, and with Middlesex General Hospital, North Brunswick.

Rosemary Agnes Gellene, M.D., of Neptune, was named President of AMNJ for 1982–1983.

Dr. Gellene, an internist specializing in liver diseases, presently is at Sloane-Kettering Cancer Center, New York, on a fellowship.

Born in Paterson in 1933, Dr. Gellene earned a medical degree from Seton Hall College of Medicine, Jersey City, in 1960. She completed her internship and residency training at Jersey City Medical Center. Dr. Gellene has been affiliated with Jersey Shore Medical Center, Neptune, where she was Director of Medicine and Director of Medical Education, and Point Pleasant Hospital, where she was a Consultant, Department of Medicine.

Dr. Gellene is a member of our Monmouth County component and of the American Medical Association; she is a Fellow of the American College of Physicians and a Diplomate of the American Board of Internal Medicine.

G.H.

Works of Public Art

The first piece of artwork commissioned for the University of Medicine and Dentistry of New Jersey-New Jersey Medical School, Newark, was presented in 1978. Four years later the piece stands out with as much brilliance as it did when it first was unveiled. The artwork is a mobile-like structure entitled, "Reach Out," created by Timothy Fox of Chatham Township.

Tim Fox was a member of the Class of 1982; presently, he is in a residency program in surgery at Temple University, Philadelphia. Tim became interested in sculpting when he

was a senior at Lake Forest College, Illinois, in 1977. When he arrived at UMDNJ-New Jersey Medical School, he had an idea that he brought to life in cardboard. Tim presented the idea to administrators and he was commissioned to complete the work.

"Reach Out" is a 9-foot sculpture of the human body encased in two metal spheres with diameters of 11 and 13 feet (see cover). This larger-than-life mobile is made of 8-inch, cold-rolled steel pieces attached by chains and chrome plated. The human figure dangles in the lobby outside of

lecture halls in the Basic Science Building. "Reach Out" serves a unique aesthetic and educational function—a concept coming into its own with commissioned artwork.

Tim has worked only on one other major piece of sculpture. Between his second and third years of medical school, Tim took off a year to complete, "Eagle." This sculptured bird stands 14 feet high, 18 feet long, with a 28-foot wingspan. Made from steel and chrome scraps, "Eagle" now sits in Nabisco headquarters, East Hanover. Tim is hoping to interest the 1984 Olympic Committee in the piece; the symbol for the upcoming Olympic games is the American eagle.

Five years ago, Assemblyman Thomas J. Deverin, Carteret, sponsored the Public Buildings Arts Inclusion Act; the act was passed in 1978 and provided "for the inclusion of fine art in the design of public buildings constructed by the state of New Jersey. Total estimated cost of the fine art cannot exceed 1.5 percent of the total estimated cost of the building." With the passage of this bill, the University of Medicine and Dentistry of New Jersey received a facelift.

In 1981, Barry V. Blair, of Hoboken, received 1 of 20 arts inclusion project awards. Blair was commissioned to create a piece of artwork for exterior display for the new Teaching and Research Facility at UMDNJ's Camden campus.

A talented sculptor, Blair brought together steel and unhewn stone in a geometric pattern (Figure). The untitled, 8000-pound abstract piece symbolizes harmony between nature and technology. The elements of the sculpture, as Blair noted, "are integrated into a harmonious whole, imparting a sense of serenity." Completed this past June, this impressive jagged and angular patterned sculpture helps to

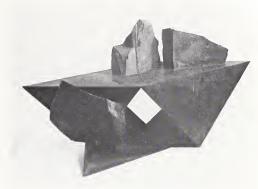


Figure-Sculpture by Barry Blair.

identify the tree-lined entranceway plaza to the teaching and research facility as well as to emphasize the importance, literally and figuratively, of the entranceway.

The sculptures by Tim Fox and Barry Blair are just two of the many artworks to be found on the campuses of our medical schools. The purpose of such fine artworks is to give the student, the physician, and the visitor a heightened sense of the environment and to display, in an original and subtle style, the importance and value of incorporating fine arts into the life of the medical profession. G.H.

ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION:

Others to look for:

agitation
anorexia
feelings of guilt
and worthlessness
fatigue
palpitations
headache
vague aches
and pains
sadness
psychic and
somatic anxiety





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LIMBITROL* TABLETS Tranquilizer—Antidepressant Before prescribing, please consult complete product information, o summory of which follows:

Indications: Relief at maderate to severe depression associated with maderate ta severe anxiety

Controlndications: Known hypersensitivity to benzadiazepines ar tricyclic ontidepressonts. Do not use with manaamine axidase (MAO) inhibitors or within 14 days following discontinuation at MAO inhibitors since hyperpyretic crises, severe canvulsions and deaths have occurred with concamitont use, then initiate coutiously, gradually increasing dasage until optimal response is achieved. Contraindicated during acute recavery phase fallowing myocardial.

Wornings: Use with great core in patients with history at urinary retention or wormings: use will great cote in patients with instary a durinary reletation or ongle-closure glaucomo. Severe constipotion may accur in potients taking tricyclic ontidepressants and ontichalinergic-type drugs. Closely supervise condiavoscular patients. (Arrythmina, sinus tochycardia and prolangation at conduction time reported with use of tricyclic ontidepressonts, especially high doses. Mycardial infarction and stroke reported with use of this class of drugs.) Coulion patients about possible combined effects with alcahol and other CNS depressants and against hazardaus accupations requiring camplete

other CNS depressing and adjoins inductional acceptancies requiring complete mental alerties (e.g., operating machinery, driving)

**Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenitol molformations os suggested in several studies. Consider possibility of pregnancy when instituting theropy; odvise potients to discuss therapy if they intend to or do become pregnant.

**Since physical and psychological dependence to chilardiazepoxide have been repeated to the properties of the properties of

reported rorely, use caution in administering Limbitral to addiction-prone individuals or those who might increase dasage, withdrawal symptoms tollowing discontinuation of either component alone have been reported (nouseo, headoche and malaise for amitriptyline, symptoms [including canvulsions] similar to those of barbiturate withdrawal for chlordiozepaxide) **Precoutions:** Use with caution in patients with a history of seizures, in hyperthyraid patients ar thase an thyraid medication, and in patients with impaired renal or hepatic function. Because at the passibility at suicide in depressed patients, da not permit easy access to large quantities in these potients. Periodic liver function tests and bladd counts are recommended during prolanged freatment. Amitriptyline campanent may black action of guonethidine or similar antihypertensives. Concomitant use with after psychotropic drugs has not been evaluated sedative effects may be additive Discontinue several days before surgery. Limit concomitant administration of ECT to essential freatment. See Warnings for precautions obout pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smollest effective dosage to preclude ataxia, aversedation, confusion or onlichalinergic effects. Adverse Reactions: Mast frequently reparted are those associated with either component alone drawsiness, dry mouth, constipation, blurred vision, dizziness and blooting. Less frequently occurring reactions include vivid dreams, implence, fremo; confusion and nasal congestion. Many depressive symptoms including onorexio, fatigue, weakness, resitessness and lethorgy. have been reparted as side effects of both Limbitrol and amitriptyline Gronulocytapenio, joundice and hepatic dystunction have been observed rorely

The fallowing list includes adverse reactions not reparted with Limbitral but requiring consideration because they have been reported with one or both

components or closely related drugs Cordiovosculor Hypotension, hypertension, tachycardia, palpitations, mya-cardial intarction, orrhythmios, heart black, stroke

Psychiotric Euphoria, opprehension, poar cancentrolion, delusions, hallucinations, hypomania and increased ar decreased libido.

Neurologic Incaardination, otoxio, numbness, hingling and paresthesias of the extremities, extrapyramidal symptams, syncope, changes in EEG patterns Anticholinergic Disturbance of accommadation, paralytic ileus, urinary retentian, dilatation at urinary tract

Allergic Skin rash, urticaria, photosensitization, edema at tace and tanque, pruritus

Hematologic Bane marraw depression including agranulacytasis, eosinophilio, purpura, thrambacytapenia

Gostrointestinol Nausea, epigastric distress, vomiting, anorexia, stomatitis,

peculiar taste, diarrinea, black longue

Endocrine Testicular swelling and gynecamastia in the mole, breast
enlargement, galactorrhea and minor menstrual irregularities in the temole and elevation and lowering of blood sugar levels

Other Headache, weight gain at loss, increased perspiration, urinary frequency, mydriasis, jaundice, dispecia, parolid selling.

Overdosage: immediately hospitalize palents suspected at howing token on overdosage: immediately hospitalize palents suspected at howing token on overdosage: immediately hospitalized and suspected at ordinaristration of 1 to a might palent suspected at the properties of the overse line symptoms of a might provide that been reported to reverse line symptoms of amitriptyline paisoning. See complete product information for manifestation

Dosage: Individualize according to symptom severity and patient response Reduce to smallest effective dasage when satisfactory response is obtained Larger partian at daily dose may be taken at bedtime. Single $h\ s$ dose may suffice for some potients. Lower dosages are recommended for the elderly Limbitral 10-25, initial dasage of three to four tablets daily in divided dases, increased to six tablets ar decreased to two tablets daily as required. Limbifol 5-12 5, initial dosage of three to four toblets daily in divided doses, for patients who do not tolerate higher doses.

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Comparative Study of Two Nocturnal Penile Tumescence Monitors

JOSE F.J. LEYSON, M.D., and RYLAND B. POWELL, M.S.W., East Orange*

Nocturnal penile tumescence (NPT) usually is monitored in a hospital as a diagnostic aid in the management of erectile dysfunction. Recent clinical trials suggest that two types of portable monitors can provide adequate objective data for the diagnosis of impotence in outpatients. Nine controls and 300 NPT recordings were performed on 100 impotent patients; the results are discussed.

he recordings of nocturnal penile tumescence (NPT) have been used as additional clinical data in the evaluation of the erectile capacity of the penis. NPT studies utilizing nonportable recorders usually are done in a sleep laboratory with monitoring of rapid eye movement (REM) and nonrapid eye movement (NREM) during sleep. Several authors have reported an average of 85.4 percent REMrelated nocturnal erections while 14.6 percent are non-REM associated.1-3 Furthermore, preliminary studies revealed that electroencephalographic (EEG) and electrooculographic (EOG) events during sleep are not necessary during NPT monitoring.4 Initial experience with a battery-powered portable NPT recorder has been shown to provide satisfactory objective data in the home setting in the differentiation of the causes of impotence.5 In order to reduce medical expenses incurred in sleep laboratories and to determine which portable NPT monitor can offer the best options to both patient and physician, a comparative study of NPT recorders was done.

MATERIALS, INSTRUMENTATIONS, AND METHODS

Medical and sexual histories, psychological evaluations, and physical examinations were obtained along with NPT recordings in 3 normal subjects and in 100 impotent patients. Penile doppler flow studies, blood pressure records, and hormonal determinations also were done. The indications for special laboratory tests and routine blood analyses with the

urological examination in the complete evaluation of sexual dysfunction are discussed in detail in a separate paper. The age of patients studied ranged from 18 to 71 years old.

Two portable NPT monitors were used: American Medical Systems Inc.a (AMS) (Figure 1A) and the Event Systems Inc.^b (ES) (Figure 1B). The patient was instructed to calibrate the sensors (strain gauges)7 with the use of plastic cylinders (dummies) of known diameters. One strain gauge was placed around the penile coronal sulcus (subcoronal) and the other near the base (basal). The connecting cable from the sensors to the monitors was secured to the patient either by tapea or a binder to reduce artifacts of motion. The baseline level for the starting flaccid state for both NPT recorders was set in accordance with each manufacturer's instruction manuals. The patient was requested to demonstrate the use of the monitors during an office or clinic visit. Table 1 illustrates the patients' diagnoses, subjects studied, and the number of nocturnal recordings. A hospital and a corresponding home nocturnal tracing of each NPT monitor was counted as one. Of the 300 NPT recordings, 70 patients

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^aAmerican Medical Systems Inc., Minneapolis, MN

^bEvent Systems Inc., Moorestown, NJ

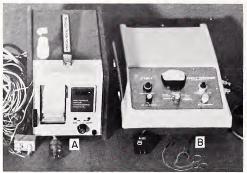


Figure 1A—7600 AMS three-conductor cord monitor with a calibration cylinder. 1B—PTM-1 ES battery-powered monitor with mercury-filled strain gauges.

TABLE 1 100 Patients Complaining of Impotence			
Diagnoses	Patient Number	Number of Nights Monitored	
Disc diseases	2	6	
Peyronie's disease	1	3	
Metastatic neoplasms	2	6	
Spinal cord injuries	40	110	
Diabetes and			
hypertension	2	6	
Hypertension only	12	43	
Renal failure			
(hemodialysis)	2	6	
Vascular insufficiency	5	15	
Psychiatric problems	5	5	
Chronic alcoholism	3	9	
CVA (strokes)	3	9	
Diabetes mellitus	15	55	
Neuritis	1	3	
CHF-Valvular diseases	3	12	
Multiple sclerosis	2	6	
Drug abuse	2	6	

had three night monitorings, 20 patients had four night monitorings, and 10 patients had 1 night monitoring. Different events of sleep (restless slumber, urination), strain gauges entanglement, and the time of going to bed and awakening are noted by the patient. Erection can be verified visually by the patient when the biofeedback alarm of the ES monitor is activated. The details of the proper use of both ES and AMS monitors are discussed elsewhere. 5.8 We believe that three nights of NPT monitorings are sufficient for diagnostic evaluation. 6

RESULTS

In the control group, the average duration of erection was 42 minutes occurring at three events nightly with a penile expansion of greater than 15 mm or 1.2 cm distension. Overall, both NPT monitors showed similar normal baseline values including the strength and sensitivity of their strain gauges. A normal ES NPT recording shows a gradual, smooth ascent and descent to form a wave (Figure 2A). (Any tracing that differs from the aforementioned pattern is an artifact.) On the other hand, the normal AMS NPT tracing depicts a sudden rise and fall forming a broad-based spike pattern (Figure 3A). Any wave or spike less than 23 minutes

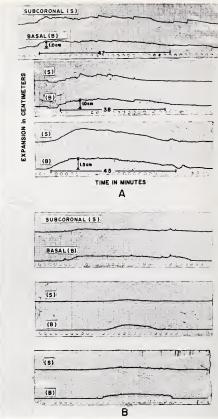


Figure 2A—Event Systems Inc. recording showing nocturnal erections using a 7.5 cm strain gauge. 2B—Tracings of a 31-year-old paraplegic male with a weak basal and no subcoronal tumescence at all.

duration, occurring less than three times nightly and below 1.2 cm in penile circumference expansion, is consistent with organic impotence. A flat tracing means no erection (abnormal), the sensors are disconnected, and/or the sensors are not used (Figure 2B, Figure 3B). All hormonal levels were normal except one with diabetes mellitus and hypotestosteronemia. All patients with vascular insufficiencies showed abnormal penile blood flow and blood pressure data and the rest were within normal limits.

DISCUSSION

Erectile dysfunction is a frustrating condition to the patient and a diagnostic-therapeutic dilemma to the physician. The use of polysomnographic and NPT monitoring in sleep disorder centers provide diagnostic information of sleep-related behaviors, and serves in the assessment of penile erectile function. Sleep laboratories charge an average of \$200 per night for NPT monitorings and between \$1,200 and \$1,500 for three nights with a full battery of impotence diagnostic tests. In order to contain soaring medical costs without jeopardizing diagnostic accuracy, two types of portable NPT monitors recently have been introduced to the medical profession. Forty-six percent of 140 AMS NPT

monitor users charge a fee of \$111 per night with a standard fee of \$186 for a complete series of nocturnal monitorings. 10 Although there is no detailed documentation regarding the advantages of AMS monitor over other types, 85.5 percent of the users reported to be satisfied with its performance. On the other hand, the mean total fee for nocturnal recordings using the ES monitor almost is the same. Our comparative data have shown that all control tracings are adequate, while 95 percent of ES and 65 percent of AMS recordings from the impotent patients were satisfactory. ES tracings were easier to interpret and almost all artifacts could be related to motion of the patient5 or kinks and breakage of the sensors. These artifacts readily can be demonstrated and reproduced while the subject is awake. An ES recording with a stiff ascent and descent characterizes urination (Figure 4A). The height and width depends upon the force of the urinary stream and the duration of the micturition. The AMS tracing shows sharp spikes (vertical lines) for both subcoronal and basal recordings (Figure 4B). These patterns resemble the majority of artifacts produced by the patient's movements and kinks of the sensors. Thus, AMS NPT tracing artifacts are difficult to account for.

Monoplegic, paraplegic, and older patients complain of the difficulty of carrying the heavier AMS monitor that weighs approximately 16.2 pounds. The ES recorder weighs only 6.7 pounds; the ES monitor has a luggage case for easier handling. The AMS monitor is powered by a 115-volt wall outlet, while the ES counterpart is run by a 10-cell, 6-volt battery. Forty percent of the patients use adaptors before they can use the AMS monitor because their apartment or homes do not have a 3-socket (conductor) wall circuitry. Although both recorders are equipped with safety mechanisms to forestall electric shock, such an accident should not happen to patients using the ES monitor for it is only powered by a small amount of voltage. The ES battery, which is rechargeable, can be used for 12 to 14 hours and will ast for two years; after that period the company reservices the monitor and replaces the battery free of charge. The manufacturers of both monitors supply physician-patient (operator) instruction manuals. However, the ES recorder also provides accompanying instruction cards for proper monitor operation while the patient is in his hospital room or his home. The patient can make card notations regarding the dates of testing and time of sleep and waking. Our data have shown that calibration dummies were not needed in order to assure proper pretesting calibration in the case of the ES monitor. On the other hand, the AMS recorder cannot be calibrated well without the aid of the calibration cylinders. To avoid confusion as to which sensor should be connected to which penile region, the ES recorder has markers: white for the penile tip (subcoronal) and black for the base (basal). To firmly stabilize and prevent undue sensor motion, the ES monitor cable can be fixed with abdominal or thigh binders. On the other hand, the AMS cables are taped to the patient.

Both NPT recorders have warning circuit visual signals to inform the operator/user that the strain gauges are broken or are disconnected. However, the ES monitor has a special added feature—a biofeedback (alert) alarm. This alert signal will sound a beep whenever the preset level of penile tumescence is exceeded. The patient is awakened when he has an erection. This technique of monitor signal actual erection verification can resolve the patient's psychic conflict and even may cure his psychogenic impotence. The quantitative interpretation of AMS NPT chart tracings is done by using equation: $C = A + \frac{4B}{3}$. (C is penile circumference; A is circumference; A is circumference;

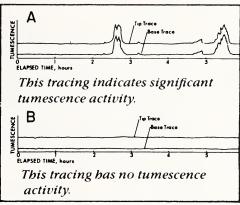


Figure 3A—Representative tracing of the American Medical Systems Inc. is normal; **3B**—Representative tracing of the American Medical Systems Inc. is abnormal.

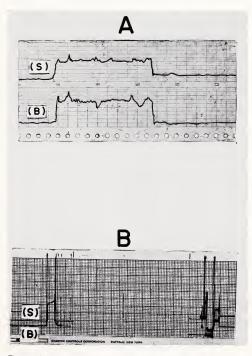


Figure 4—Recordings show the patient urinating. **4A**—Event Systems Inc. **4B**—American Medical Systems Inc.

ference of the small end of the corresponding calibration dummy; and B is net deflection at any part on either tracing.) The Event Systems Inc. has expansion time scales (ETS) for each corresponding strain gauge size that can be used for a rapid and accurate recordings interpretation. The American Medical Systems Inc. does not cover consequential damage to their monitor. However, the Event Systems Inc. provides damage-liability insurance. Comparative data including stylus mobility between the two NPT monitors are summarized in Table 2.

TABLE 2

NPT Monitors

	W I Works	
NPT Monitors	American Medical Systems Inc.	Event Systems Inc.
1. Weights	Heavy	Light
2. Electric shock	Less probable	Least probable
3. Power source	Wall circuitry	Battery
Biofeedback alarm	Absent	Present
5. Stylus stability	Better	Good
6. Sensor markers	Absent	Present
7. Instruction cards	None	Available
8. Monitor operation	Easy	Easier
9. Expansion time scales	None	Available
J. Expandion time obates		

None

CONCLUSION

10. Liability coverage

With regard to the portability, power source accessibility, patient's ease of monitor operation, interpretation, recording accuracy, and liability insurance, the ES NPT monitor offers several advantages over the AMS recorder.

SUMMARY

Nocturnal penile tumescence (NPT) monitoring has shown, by several clinical reports, that it provides 85 percent diagnostic accuracy to differentiate between psychogenic and organic impotence. Although there are about five to six NPT monitoring devices available today, only three are portable. The introduction of two portable NPT monitors (ES and AMS) has reduced medical costs while maintaining diagnostic accuracy. Comparative charts clearly have delineated the differences between the two NPT monitors. This study has demonstrated that both NPT monitoring transducers can achieve acceptable diagnostic evaluation criteria, although most clinicians and patients may prefer certain convenient features of the ES (NPT) monitors.

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Dalmane [flurazepam HCI/Roche] Stands Apart

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The Physician's Sleep Glossary

Some common sleep laboratory terms

poly-som-no-graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la-ten-cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af-ter sleep on-set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to-tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.²

re-bound in-som-nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.³



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Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restilul sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCI; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depres-sants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depres sion, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.





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Triplet Pregnancies: Experience with Four Sets

JOHN R. O'NEAL, M.D., MICHAEL D. HORN, M.D., R. RICHARD MESSICK, M.D., Willingboro*

An obstetrical group in the southern Jersey area had the unusual experience of caring for four sets of triplets in a six-month period. A review of the recent literature revealed very sparse information on the topic of triplets. Management in an office setting with frequent visits was emphasized. Hospitalization was reserved only for complications.

uring 1980-81, our three-member obstetrical group delivered four sets of triplets within a six-month period. We thought this was unusual enough to be reported. Our southern New Jersey patient population is lower middle class to middle class. We average 45 deliveries per month at a community hospital of approximately 350 beds. The hospital averages 2,000 deliveries per year and is the equivalent of a level II obstetrical facility. Although our group has privileges at a university hospital 45 minutes away, we do not serve as a referral practice for high-risk obstetrics.

CASE 1

A 22-year-old black female, gravida 5, para 2-0-2-2, was seen for prenatal care at roughly eight weeks gestation. Expected date of confinement was August 24, 1980.

Past obstetrical history revealed a right tubal pregnancy in 1976 requiring a right salpingo-oophorectomy and a therapeutic abortion. Her two children weighed 5 pounds and 5½ pounds at birth and apparently were term deliveries.

Initial blood pressure was 110/70. Prenatal laboratory values showed: Hgb of 10.1, Hct 30%, serology nonreactive, blood type O positive, rubella immune, and Class I pap smear.

After several prenatal visits, it was obvious that the patient was large for dates; a sonogram revealed triplets.

The patient suffered with severe nausea and vomiting throughout the first four months of pregnancy. For the remainder of the first trimester and for the entire second trimester, the patient was seen every 2 weeks. From roughly 28 weeks gestation onward, she was maintained at relative bedrest at home. Her only medications during pregnancy consisted of Bendectin®, prenatal vitamins, and supplemental iron.

On August 5, 1980, at approximately 37 weeks, the patient was hospitalized. Blood pressure was 140/90; the cervix was 3 to 4 cm dilated, 80 percent effaced. Vertex presentation of triplet A with intact membranes was noted. She was not in labor; reflexes were normal. Total weight gain during pregnancy was 21 pounds. The uterine fundus measured 41 cm. Urine was negative for protein. Our plan was to maintain the patient in the hospital at absolute bedrest until labor ensued.

After 10 days of hospitalization, the patient went into spontaneous labor. Her blood pressure increased to 160/110, but reflexes remained normal. Four hours of active labor failed to dilate the cervix beyond 4 cm. Cesarean section was performed under spinal anesthesia. Three live males were delivered. All had good Apgar scores; they weighed 3 pounds 11 ounces, 4 pounds 10 ounces, and 3 pounds 11 ounces. Presentations were vertex, vertex, and breech. Two placentas were found. Pathology of the placenta was consistent with

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two identical fetuses and one fraternal. At the patient's request sterilization was performed utilizing a left partial salpingectomy.

Following delivery, the patient's blood pressure remained elevated for the first two days, increasing to 180/120. A medical consultant treated her with methyldopa and diuretics.

She was discharged on the seventh postoperative day. Because her hemoglobin on discharge was 9.9, she was maintained on vitamin and iron supplementation. Blood pressure medication was taken for approximately one month. All the babies did well.

CASE 2

A 26-year-old white female, gravida 2, para 0-0-1-0, sought prenatal care at approximately nine weeks gestation. Expected date of confinement was October 30, 1980.

Past medical history revealed juvenile rheumatoid arthritis since age 12, that was controlled with salicylates. The patient had one spontaneous abortion. She conceived on Clomid*, 100 mg per day under the direction of an endocrinologist.

Prenatal laboratory values showed: Hgb of 12.9, Hct 36%, serology nonreactive, blood type A negative, rubella immune, and Class I pap smear. Blood pressure on her first visit was 100/60. Antibody titers were done every three months and were negative.

"All of the triplets initially were suspected because the mothers were large for gestational age."

Medications initially consisted of prenatal vitamins and iron supplementation. The patient was seen every 2 weeks and was noted to be clinically large for dates. Triplets were suspected by sonography. A repeat sonogram several weeks later confirmed triplets. We continued to see the patient every 2 weeks and at 28 weeks gestation the patient was noted to be 2.5 cm dilated. The patient complained of Braxton-Hicks contractions and from this point on was kept at relative bedrest at home. Vasodilan® 10 mg orally Q.I.D. were prescribed. Delalutin® 250 mg was given weekly by intramuscular injection.

On September 12, 1980, at 34 weeks gestation, the patient was admitted to the hospital with her cervix being 4 cm dilated, 100 percent effaced. Her uterine fundus measured 46 cm; she gained 40 pounds during her pregnancy. Because of the earliness of her gestation and the need for more specialized neonatal facilities, she was admitted to Thomas Jeferson University Hospital. Blood pressure was 130/96. Urine was negative for protein and reflexes were normal. The patient was started on intravenous Vasodilan® and was given 12 mg betamethazone intramuscularly daily for two days. The Vasodilan® was discontinued after 48 hours and the patient was allowed to go into spontaneous labor. Even though the patient's contractions were occurring only every 20 minutes, she made rapid progress and, therefore, delivered vaginally.

The first fetus delivered spontaneously at 5:25 A.M. weighing 3 pounds 11 ounces. Pitocin then was started intravenously and the second triplet was delivered at 5:55 A.M., weighing 3 pounds 14 ounces. The third triplet was delivered at 6:02 A.M. by elective low forceps and weighed 3

pounds 11 ounces. All babies were males with good Apgar scores. Local and pudendal anesthesia was used for all three deliveries. Three separate placentas were noted and microscopic evaluation confirmed three fraternal infants.

The mother was discharged on the fifth postpartum day and all three babies did well.

CASE 3

A 23-year-old white female, gravida 1, para 0, first came for prenatal care at six weeks gestation. Expected date of confinement was March 4, 1981.

Past medical history was unusual in that the patient suffered from alopecia totalis a year-and-a-half following an episode of scarlet fever. Because of this, the patient had been evaluated by an endocrinologist. He treated her with oral steroids without benefit until three months prior to conception.

Family history revealed twin brothers.

Laboratory values showed: Hgb of 12.5, Hct 36%, serology nonreactive, blood type B positive, rubella immune, and Class I pap smear. Two-hour postprandial blood sugar was 75. Blood pressure on her first visit was 120/60.

Early in her prenatal course the patient was noted to be large for dates. Two sonograms were necessary to confirm the presence of triplets.

The patient was seen every two weeks; she mainly remained in bed from week 28 of gestation.

On February 3, 1981, at $35\frac{5}{12}$ weeks, the patient was admitted to the hospital and confined to bed because of possible mild preeclampsia. The patient's blood pressure had increased to 130/90; there was no proteinuria. A 24-hour urine estriol value was 51.6 mg and total protein was 272 mg per 24 hours. Total weight gain during the pregnancy had been 51 pounds; fundal height was 41 cm.

On February 6, 1981, the patient's blood pressure began to worsen, with readings as high as 180/100. The patient's reflexes became brisk and slight proteinuria was noted. The decision was made to proceed with delivery although she was not in labor and her cervix was closed. Magnesium sulfate was administered intravenously for two hours; when the blood pressure stabilized, a cesarean section was performed under epidural anesthesia. Three female infants weighing 4 pounds 13 ounces, 4 pounds 10 ounces, and 4 pounds 16 ounces were delivered in the vertex, breech, and vertex positions. There were two placentas and the examination was consistent with two identical and one fraternal fetus.

Following the delivery, the patient was maintained or intravenous magnesium sulfate for 24 hours. Her majo problem, however, was postpartum atony with hemorrhag that was controlled with intravenous Pitocin®. HGB fell to 7.7 and Hct 23%. The patient was transfused with two unit of packed red blood cells. Blood pressure remained unaccept ably elevated with values running as high as 180/120 and sh was treated with oral Aldomet®, 250 mg Q.I.D. Her bloor pressure finally responded to treatment and upon discharge on the ninth postoperative day, was in the 140/90 range. Th patient and all her babies were well when discharged.

CASE 4

A 28-year-old white female, gravida 2, para 0-0-1-0 wa seen for prenatal care at six weeks gestation. Expected dat of confinement was March 23, 1981. The patient had bee referred by an endocrinologist from the University of Penr sylvania after she had conceived on Pergonal® with artificia insemination.

Past medical history was negative except for a spontaneous bortion.

Prenatal laboratory studies revealed: Hgb of 15.2, Hct 4.9%, serology nonreactive, blood type O positive, rubella mmune, Class I pap smear.

On her first visit the patient's blood pressure was 110/80. Her initial medications were prenatal vitamins and iron upplementation.

A sonogram was obtained because of treatment with Pergonal® and the fact that she was large for gestational age. Three sonograms were necessary to demonstrate triplets. Who hospitalizations were necessary during the second rimester due to severe nausea and vomiting. Because of persistent glucosuria, a five-hour glucose tolerance test was betained in the early second trimester, it revealed a one-hour alue of 175 and two-hour value of 145. The patient was naintained on a 2,000-calorie ADA diet.

The patient was seen every two weeks and was maintained t relative bedrest at home from week 28 of gestation.

On February 7, 1981, the patient was admitted to the ospital because of elevation of blood pressure to 130/90 and rominent Braxton-Hicks contractions. The patient had ained a total of 21 pounds over her nonpregnant weight of 80. Upon admission, the fundus measured 54 cm and the ervix was closed. Urine was negative for protein; reflexes ere normal. A 2-hour postprandial blood sugar was 80 1g/dl. An initial 24-hour urine for estriol showed a value of 0. Estriol levels on February 12, 21, and 22, 1981, were alues of 23.7, 22.5, and 22.3, respectively.

On February 21, 1981 the patient complained of decreased tal movement. On February 22, 1981, at 36 weeks gestaon, the patient went into spontaneous labor. The presentaon of the fetuses was vertex, breech, and breech with the rst triplet remaining unengaged. Cesarean section was erformed under epidural anesthesia. An unexpected finding as antepartum death of fraternal Baby B of several days uration. Baby A weighed 4 pounds 2 ounces, Baby B eighed 4 pounds 10 ounces, and Baby C weighed 4 pounds 2 ounces. Babies A and C did well. All babies were males. Two placentas were consistent with two identical and one aternal fetus.

An autopsy showed no gross or microscopic abnormality f Baby B. However, the umbilical cord showed two small bliterated umbilical arteries with hemorrhage at the pephery. It could not be determined whether this was an acute r chronic process, but it was felt to be the cause of the fetal eath.

The patient did well postoperatively and was discharged in the eighth postoperative day. Both she and her remaining two babies did well.

ISCUSSION

With the exception of articles by Pheiffer et al.¹ and aphael et al.² there has been little published in recent years oncerning triplets. A safe assumption is that what has been ritten about twins applies to triplets. Williams³ quotes the equency of triplets as 1:9,800 births and Daw⁴ quotes 7,925. Pheiffer had an incidence of 1:2,789, but his review ealt solely with South African black women.¹ Most recent-, Raphael reported a triplet incidence of 1:1,696.² Their atient population, however, would be considered high risk nec 72 percent of the multiple pregnancies followed treatent with ovulation-inducing agents. As with twins, the equency of triplets is related in part to five factors: race nost common in blacks), heredity (fraternal twins via

maternal genotype), increasing maternal age, increasing parity,³ and, most recently, ovulation-inducing agents.

The high fetal morbidity and mortality of multiple gestation is related to prematurity. Premature labor is the most common complication.⁵ Pheiffer¹ reported that the corrected perinatal mortality (less grossly premature infants) for triplets to be 13.2 percent. With vaginal delivery, the third triplet is at the greatest risk with perinatal mortality of 23.3 percent. Nevertheless, there are a number of other problems

"Problems one would expect to encounter with triplets include premature labor, preeclampsia, hypertension, maternal anemia, fetal growth retardation, and postpartum uterine atony."

that occur more frequently with multiple gestation. Some examples are preeclampsia, polyhydramnios, fetal growth retardation, congenital anomalies and monstrosities, placenta previa, cord entanglements, cord prolapse, velamentous cord insertion and vasa previa, transfusion syndrome, fetal malpresentation (e.g. breech presentation, interlocking, collision), perinatal asphyxia, maternal anemia, abnormal glucose tolerance, dysfunctional labor patterns, and uterine atony with postpartum hermorrhage. 3.6

The foregoing case histories demonstrate many of the problems one is apt to encounter with triplets, such as premature labor, preeclampsia, hypertension, maternal anemia, fetal growth retardation, and postpartum uterine atony. However, they were somewhat atypical in that three were primigravidas, the average maternal age was 24, and the average gestational age at the time of delivery was 36 weeks. The mean gestational age for triplets is 33 weeks.5 However, many other minor but significant problems were encountered that deserve emphasis. All suffered with greater than usual nausea and vomiting which was difficult to control. Pronounced generalized discomfort with uterine irritability, excessive fetal movement, edema, low back pain, and insomnia are to be expected and require explanation and support by the physician. A logical but somewhat unexpected observation was the severe emotional strain that the anticipation of triplets placed on the parents and their immediate families. Most demonstrated significant psychological problems at some point during their pregnancies.

All of the triplets initially were suspected because they were large for gestational age. Pheiffer states that in his review the diagnosis of triplets was made during the second stage of labor 50 percent of the time.¹ This clearly illustrates the importance of careful clinical observations during the first and second trimesters. Jarvis suggests that two ultrasonic examinations may be necessary to confirm the clinical suspicion of twins.¹ Our experience with triplets agreed.

Komaromy and others definitely have confirmed the benefits of bedrest in prolonging twin pregnancies and preventing premature labor.* It was our policy to place our patients at bedrest at home starting at 28 weeks. Hospitalization was reserved only for problems such as premature dilatation, premature labor, and preeclampsia. In contrast

with Raphael et al.² we feel that routine hospitalization for the purpose of maintaining adequate bedrest is impractical, emotionally and financially, and is unnecessary provided the patient is seen frequently, usually every 2 weeks, with frequent internal examinations. Also, we are in agreement with Itzkowic that prophylactic cervical cerclage is much too aggressive.⁵

Bailey et al. have suggested that nonstress tests are feasible and of clinical value in patients with multiple pregnancy. Although this may be useful with twins, this would not be true with triplets. The information provided would be too imprecise and the margin for error too great.

"We feel that routine hospitalization for the purpose of maintaining adequate bedrest is impractical, both emotionally and financially, and is unnecessary."

In many series the majority of the deliveries were by the vaginal route. 1.4 Even though we would agree with Pheiffer¹ that a careful and appropriate vaginal approach has its merits, cesarean section should be considered the method of choice for the majority of triplet births. As stated earlier, the perinatal mortality of the third triplet delivered vaginally is unacceptably high, and the necessity for a breech extraction of at least one infant is almost guaranteed. If one is fortunate enough to have a set of triplets carry close to term, the outcome should not be jeopardized by a difficult breech extraction. We favor epidural anesthesia over spinal or general in order to avoid hypotension and fetal depression.

Finally, the socioecomonic problems should not be ig-

nored. Triplets represent a huge emotional and financial burden for most couples. Reasonable efforts should be made early on to rally support from immediate family members and from the surrounding community.

SUMMARY

A group of obstetricians in private practice had the experience of delivering four sets of triplets in a six-month period. The average gestational age at the time of delivery was 36 weeks with 11 of the 12 infants surviving. Pre-eclampsia, maternal anemia, and postpartum uterine atony were the most frequent problems encountered. Early diagnosis with liberal use of sonography is stressed. The patients were managed with bedrest in a home setting coupled with frequent office visits. Hospitalization was reserved only for problems. Liberal use of cesarean section with epidural anesthesia is recommended. The emotional burden on the prospective parents is emphasized.

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REVIEW ARTICLES

New Jersey Bugs— Reactions in People

RICHARD S. BERGER, M.D., and CHRISTOPHER M. PAPA, M.D., New Brunswick*

This review focuses on the clinical manifestations and treatment of problems caused by those arthropods that make their home in New Jersey and updates some of the newly recognized syndromes associated with bites and stings.

he arthropods that include the insects and arachnids are the largest phylum in the animal kingdom. These arthropods are so successful at survival that there are over one million species; they are omnipresent inhabitants of our environment. Although certain species cause year-round problems in New Jersey, the majority make their presence felt in the warmer months.

Many arthropods produce venom that is used in defense or as part of the process in gathering food. These toxins may produce irritant or allergic reactions in the skin. The non-predator or parasitic arthropods usually do not secrete poisons and, therefore, produce allergic reactions only. Infection and foreign body reactions may occur as secondary effects. Severe systemic manifestations may be seen as a direct toxic result of the venom from allergic reactions or from the introduction of other pathogens.

GENERAL RECOGNITION OF ARTHROPOD REACTIONS

The immediate reaction of biting arthropods is an all-toofamiliar occurrence. The typical red, itchy wheal or painful swelling which develops at the puncture site easily is recognized and rarely requires physician consultation. The diagnosis is less obvious when the patient is not aware of being bitten and when there are many widespread lesions. Small insects, such as fleas, are difficult to see while other pests, like the bedbug, are nocturnal visitors who do their mischief and disappear while the victim sleeps. Even so, there are certain incriminating clinical clues that fit into familiar patterns when confronting an otherwise mysterious "rash." The bites usually are discrete lesions, each separate from one another, each resembling the other. Certain bites, such as those caused by bedbugs, will be bunched or grouped or may show a linear array where the insect has travelled and repeatedly pierced the skin (Figure 1). The bites of flying insects invariably are on exposed parts of the body, while flea bites characteristically are on covered areas, especially the lower legs. Clusters may appear where clothing impedes the progress of the insect at shirt and jacket cuffs, bra seams, and belt lines. The tiny, sylvan chigger that inhabits tall grass and brush areas of southern New Jersey characteristically does its biting about the tops of socks on the lower legs. Careful attention to the morphology of the bite may identify the unseen attacker. Some examples include the characteristic necrosis that occurs with Loxosceles reclusa spiders and the linear blisters produced by certain beetles.

The central bite punctum of a persistent lesion not always is easy to discern or to distinguish from any other lesion that has been scratched to the point where a bit of the skin is removed and replaced by a bloody crust. Secondary infection totally may obscure the underlying bite.

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Figure 1—Grouped and linearly arranged erythematous papular lesions of flea bites. When multiple widespread areas are involved, the lesions simulate the rashes of systemic diseases.



Figure 2—Papular urticaria in the neck of a 26-year-old man. Although usually seen in children, this adult received several sand flea bites while camping in an area far removed from his New Jersey home. Relatively few encounters with an insect species produces this special picture of a developing allergy.



Figure 3—Extreme sensitivity in an infant produced a blister where an insect, probably a mosquito, had bitten. Care must be taken to rule out bullous staphylococcal infections secondary to the bite.

FLIES, MOSQUITOES, GNATS, AND FLEAS

The easily recognized mosquito, fly, or gnat bite presents special diagnostic difficulties in infants and young children. Besides the lack of a helpful history, the lesions themselves vary markedly from those encountered on adults. Although there may be some evanescent whealing, the characteristic lesions are 3 to 4 mm, red to brown, itchy, persistent papules (papular urticaria). They tend to occur in broad groups on exposed areas, primarily on the face and extensor surfaces of the upper extremities (Figure 2). These peculiar reactions generally occur in the age group from two to seven years, and are thought to represent an intermediate stage of development on the road to the "adult" immediate wheal phenomenon. The child first must be sensitized, which is why the lesions do not appear in the first year of life. In cases where extreme sensitivity develops, the lesions may present as blisters (Figure 3). This poses a further diagnostic problem in children since youngsters seem to be more prone to secondary bacterial infection. The bites are colonized with staphylococci or streptococci and quickly may turn to impetigo, with blisters or superficial crusting or erosions (Figure 4). Occasionally, a deeper ulcerative ecthyma or small abscess-like lesions develop. Following the stage of papular urticaria, children often go through a period of heightened sensitivity manifested by giant urticaria in response to flies and mosquitoes.

Flea bites deserve a word of special mention because they are so common, so frequently misdiagnosed, and subject to a good deal of popular misconceptions. Not all flea bite



Figure 4—A yellow-crusted lesion on a reddish background represents a secondary bacterial infection, in this case streptococcal, complicating a scratched mosquito bite.

victims are pet owners. They may come in casual contact while visiting others with animals. Direct contact with the animal is not necessary since rugs or furniture usually are laden with the pet's fleas. A ride in someone's flea-infested carmay be the source of the trouble. One also may move into a house or apartment previously occupied by a family with a dog or cat and suddenly the individual may become the host for the hungry fleas. Since the manifestation of flea bites are due to an allergic reaction, not all members of a family react to the bites. The reactions may differ widely from the miniscule to the monstrous. The typical lesions tend to be small, often with a central vesicle and located on the lower legs. Occasionally, the reactions, such as described under papular urticaria, can overshadow the primary problem.

Treatment of the bites is directed at the particular problem encountered. Where there is infection, appropriate antibiotic therapy, usually with erythromycin, should accompany symptomatic topical treatments. Compresses with Burow's solution for 20 minutes, four times daily for three days, with concomitant application of a medium potency fluorinated steroid cream, such as Synalar® is advisable. Since a good deal of the scratching is done while asleep, Atarax® or Vistaril® may be used as an antipruritic at bedtime. Identification of the causative insect is important in order to eradicate or avoid the pest. In the case of bedbugs, this will require a thorough examination of the bed, as well as the crevices of the floor and walls. Covering clothing and insect repellents are all that can be done when trying to protect the skin from the insects in the outdoor environment.

BEES, WASPS, HORNETS, AND ANTS

The local reaction to envenomation by the Hymenoptera insects is immediate severe redness, swelling, and pain. It is rarely a diagnostic problem. Hymenoptera stings have been associated with the development of acute polyradiculoneuropathies, such as Guillain-Barré syndrome and Fisher's syndrome in children.¹ Since secondary infection always looms as a possibility with penetrating wounds of the skin, it is not surprising that sequelae, such as toxic shock syndrome, have been reported following a bee sting.²

Honey bees leave their stingers imbedded in the skin. The retained sac will continue to inject venom unless the stinger is promptly and very gently removed with a forcep, taking care not to squeeze the venom sac. Treatment with rest, cold compresses, and analgesics may be sufficient to allay the discomfort. Very painful local reactions can be relieved by

the injection of a 0.3 ml of 1 percent lidocaine (Xylocaine®), with epinephrine 1:100,000, into the area.³ The real fear, however, is that the occasional systemic reaction to the sting may be fatal. There are many more deaths from Hymenoptera stings than from all the other insect bites combined. Considerable controversy still exists over the nature of these deaths; although usually described as "anaphylactic reactions," there is scant factual confirmation. Many of these deaths may be due to myocardial infarction. Likewise, the value of desensitization routines for the prevention of fatal reactions, even if a venom extract is used, is an unresolved matter.⁴ Whole body extracts that were used for desensitization in the past certainly were of no proved value.*

LICE

Here is an infestation where humans are the very special host to small insects, each preferring particular parts of the body. Lice will live for less than 48 hours away from man, and their eggs will not hatch at room temperature.

Pediculosis capitis usually is found in small epidemics among school children. Aside from the severe scalp itching and scratching, it is easy to recognize the infestation by the white egg casings or nits which the insect attaches to the hairs. On close examination, the adult organism may be discovered moving among the hairs.

Treatment of the scalp problem is with gamma benzene hexachloride shampoo (Kwell*). At least one ounce of shampoo is rubbed into the area for five minutes, working up a good lather with warm water. After rinsing and drying, a fine tooth comb should be used to remove the nits from the hair. The treatment can be repeated in 24 hours, but should not exceed two shampoos a week. An alternate treatment, pyrethins (Rid* and Pyrinate*), may be applied undiluted until the hair is wet and then washed out in ten minutes. Clothing and bedding should be washed.

Pediculosis pubis ("crabs"), the lice infestation in the pubic region, occurs most frequently in sexually active young adults and may be found in nongenital areas (axillae and eyelashes) as well. Discrete blue macules may occur on the thighs, abdomen, and thorax. Detection and treatment are similar to what already has been described. Since these infestations usually imply a level of sexual promiscuity, it is prudent to suspect and examine the patient for other venereal diseases. If possible, the contacts should be examined and treated.

"Honey bees leave their stingers imbedded in the skin. The retained sac will continue to inject venom unless the stinger promptly and very gently is removed with a forcep, taking care not to squeeze the venom sac."

For pediculosis of the eyelashes, coating the lashes with petrolatum twice daily for eight days will eliminate the lice. If this fails, 0.25 percent physostigmine ointment may be used.

Pediculosis corporis is the rarest and most difficult of the three lice-related problems to diagnose. The organisms generally are difficult to find because they remain in the seams of



Figure 5—Erythema chronicum migrans, a slowly expanding red annular lesion following a tick bite, may be the harbinger of Lyme arthritis and puzzling neurological problems.

the clothing rather than on the body of the patient. There are no obvious nits since they reside in the fibers of the fabric. The bites are similar to those described in the initial section dealing with insects and may provoke the nonspecific, puzzling papular urticaria reaction. Treatment with gamma benzene hexachloride cream or lotion will rid the body of the organisms, but it is imperative that the clothing and bedding be washed.

CATERPILLARS

Some species of caterpillars found in the United States provoke rather severe systemic local toxic reactions from the toxins injected by the spiny hairs or bristles. New Jersey's native caterpillars produce more localized irritant reactions consisting of erythema, edema, and pruritis. Within recent years overwhelming numbers of gypsy moth caterpillars have ravaged the trees of our state, increasing the opportunity of accidental contact with people. The urticarial dermatitis produced at the areas of contact usually is short-lived, lasting one or two days. Fever, nausea, vomiting, diarrhea, and chills seldom are reported.

TICKS

Ticks usually are found in grassy wooded areas in our state. Most people are unaware of the bite with which the tick attaches itself. If the tick is not removed, a painful inflammatory reaction develops. Tick saliva activates a component of complement-producing local tissue destruction and chemotaxis. Additionally, if mouth parts remain after removing the tick, secondary infection and ulceration or a firm violaceous nodule (foreign body granuloma) may develop. The latter may be treated by simple excision or injection of intralesional steroids. While various home remedies for tick removal are rife, simple slow traction using a forcep is safe and adequate.

If the tick is not removed within a few hours, it is a potential vector of serious diseases, including rickettsial infections or tick bite paralysis. Rocky Mountain spotted fever is endemic to New Jersey. Fever, headache, and morbilliform rash, that may become petechial, characterize this potentially lethal disease. The exact mechanism of tick paralysis is disputed. It starts with ataxia and areflexia and progresses to a motor weakness such as that seen in the Landry's-Guillain-Barré syndrome.⁷ Tetracycline is the treatment of choice for rickettsial infections. Removal of the tick cures the paralysis.

In 1975, the first of several reports from the eastern United

States implicated the tick *Ixodes dammini* in Lyme disease. Thirty-two cases were reported by the New Jersey State Department of Health in 1981. The characteristic skin lesion is an expanding red macule with partial central clearing (erythema chronicum migrans) (Figure 5). This is followed several weeks later by a migratory polyarthritis. Neurologic involvement and carditis also has been reported. Penicillin G 250,000 units four times a day for seven to ten days should be given at the time of the rash. Tetracycline may be used in patients allergic to penicillin.^{8,9}

Insect repellents and washing the hair with tar shampoos will discourage the initial attachment of the tick.

SCABIES

Sarcoptes scabiei, a microscopic arachnid, selectively lives on man. The scabies mite burrows under the upper layer of the skin inducing an inflammatory response that produces tremendous itching six weeks after infestation. The diagnostic signs on the skin are multiple papules, minute vesicles, and occasional linear tracts characteristically located in the fingerwebs, around the wrists, axillae, nipples, waist, umbilicus, buttocks, and genitalia. The upper part of the back, the palms and soles, and the head and neck usually are spared. Most of the lesions are allergic reactions to the

"Some species of caterpillars found in the United States provoke rather severe systemic local toxic reactions from the toxins injected by the spiny hairs or bristles."

mite, with very few mites actually being in the burrows. Superimposed scratching and infection may be severe. In immunosuppressed people, a particularly virulent form of scabies, called Norwegian scabies, is encountered. Thick, hyperkeratotic lesions with myriads of organisms characterize, this relatively uncommon, but very contagious, variety. Animal scabies pose only a minor problem for humans since a temporary infestation is acquired, including a papular urticarial response.

Diagnosis of human scabies is confirmed by placing a drop of immersion oil on a No. 15 blade and scraping several burrows. This material is placed on a slide and examined under low power (4 x objective). In the majority of cases (but not all), a mite, an ovum, or fecal pellets can be seen. Lesions other than burrows are much less likely to be "positive." The more productive areas to sample are pruritic vesicles and burrows especially between the fingers.

The most effective treatment consists of applying 1 percent gamma benzene hexachloride cream or lotion from the chin to the toes. This is allowed to remain on the skin for 12 hours. A repeat application in one week may be required. More frequent applications may be dangerous due to absorption of the chemicals. In instances of treatment failure, 10 percent N-ethyl-o-crotoluide (Eurax®) is applied for two successive nights and a cleansing bath taken 48 hours after the last application. For infants and pregnant females, 6 percent precipitated sulfur in petrolatum applied twice daily for three days is considered safer than 1 percent gamma



Figure 6—Brown recluse spider bite after 36 hours showing large erythematous edematous area with central necrosis. The necrotic area typically is angulated and well marginated.

benzene hexachloride. Pruritus often remains for one or two weeks after successful treatment.

SPIDERS

The venom of most spiders can produce local erythema, edema, and regional lymphangitis (due to the chemical toxins). Treatment consists of local cold compresses, topical steroids, and systemic antihistamines if more generalized symptoms occur. Only two spiders in the United States produce serious complications, and they rarely are found in the northeast. The *Loxosceles reclusa* spiders (i.e. brown recluse) found mainly in the Mississippi-Missouri-Ohio River basin and the southwest may produce areas of cutaneous necrosis (Figure 6), a morbilliform, purpuric, or urticarial rash, fever, nausea, and occasionally hemolysis or diffuse intravascular coagulation (DIC). Deaths may occur in small children. Less severe reactions occur as well. ¹⁰ Specific therapy is lacking. The use of steroids and surgery is controversial.

The black widow spider is found in New Jersey but usually is more of a problem in the southern United States. It has a

neurotoxic venom that produces a boardlike abdomen, severe cramps, and waves of pain but only minor cutaneous discomfort. Systemic treatment with muscle relaxants (diazepam, Valium[®], 5 to 10 mg), and intravenous calcium gluconate helps relieve the muscle spasm. Narcotics may be required for pain. A specific antivenin, Lyovac[®], is available for high-risk patients—small children, hypertensive patients, and patients over 60 years of age. It is administered intramuscularly after appropriate skin tests for allergy to normal horse serum are found to be negative.

SUMMARY

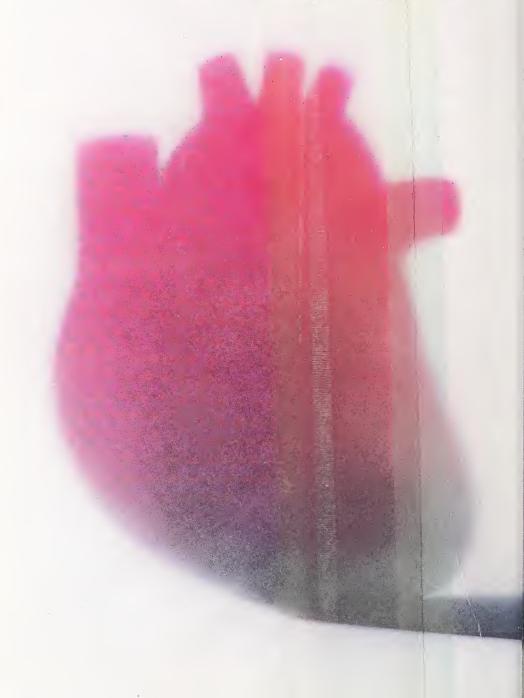
Uncertain skin rashes from arthropod bites and stings can be distinguished on the basis of certain characteristic patterns of reactions. The morphology arrangement and distribution of these clinical patterns, along with unusual and extracutaneous reactions, are reviewed. Treatment and prevention are discussed in relation to the individual problems.

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CONTRAINDICATIONS

1) bronchial asthma; 2) allergic rhinitis during the pollen season; 3) sinus bradycardia and greater than first degree block, 4) cardiogenic shock, 5) right ventricular failure secondary to pulmonary hypertension; 6) congestive heart failure (see WARNINGS) unless it is secondary to a tachyarrhythmia treatable with propranolol; 7) in patients on adrenergicaugmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs

WARNINGS

CARDIAC FAILURE. In congestive heart failure, inhibition with beta-blockade carries the CARDIAL PAILORE in Congestive near failure, imminition win beta-diocaade carries the potential hazard of further depressing myocardial contractility and precipitating cardiac failure. In patients already receiving digitalis, proprianolol may reduce the positive inotropic action of digitalis, and may have an additive depressant effect on AV conduction. IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, in rare instances, cardiac

failure has developed during propranolol therapy. At the first sign of impending cardiac failure, patients should be fully digitalized and/or given a diuretic, and observed closely a) if cardiac failure continues, despite adequate digitalization and diuretic therapy, propranolol should be immediately withdrawn; b) if tachyarrhythmia is being controlled, patients should be maintained on combined therapy and closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of arigina and, in some cases, myocardial infarction, rollowing adopts discontinuation or INDERAL therapy Therefore, when disconfinance of INDERAL is planned the dosa should be gradually reduced and the patient carefully monitored in addition, when INDERAL is prescribed for angina pectors, the patient should be cautioned against interruption or cessation of therapy without the polysician's advice. If INDERAL therap is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute. INDERAL therapy and take other measures appropriate for the management of unsta-ble angina pectons. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult attrerosclerotic heart disease, who are given propranolol for other indications

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long term use have not been adequately appraised. Give special consideration to propranolol's potential for aggravating congestive heart failure. Propranolol may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Propranolol should be withdrawn slowly, since abrupt withdrawal may be fol-

Impovement. Topical memory and the windown sone, since adult, without many be to lowed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm Pro-pranolol does not distort thyroid function tests. In PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after proprianolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker in one case this resulted after an initial dose of 5 mg propranolol

5 mg progranolol IN PATIENTS UNDERGOING MAJOR SURGERY, beta-blockade impairs the ability of the heart to respond to reflex stimuli. Except in pheochromocytoma, propranolol should be withdrawn 48 hours prior to surgery. In case of emergency surgery, the effects of pro-pranolol can be reversed by administration of beta-receptor agonists such as isopro-terend or leavierenol. List such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has been reported IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-CHTIS, EMPHYSEMA), administer with caution, since propranolol may block bronchodila-

tion produced by endogenous and exogenous catecholamine stimulation of beta-receptors.

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Propranolol may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia, especially in patients with labile diabetes. A precipitous elevation of blood pressure may accompany hypoglycemic attacks

USE IN PREGNANCY. Safe use in human pregnancy not established. Embryotoxic effects have been seen in animals at doses about 10 times the maximum recommended human dose

PRECAUTIONS

Patients receiving catecholamine depleting drugs such as reserpine should be closely observed if propranolol is administered, since it may occasionally produce hypotension and/or marked bradycardia resulting in vertigo, syncopal attacks, or orthostatic hypoten

Observe laboratory parameters at regular intervals. Use with caution in patients with impaired renal or hepatic function

ADVERSE REACTIONS

Cardiovascular bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, arterial insufficiency, usually of the Raynaud type, thrombocy topenic purpura. Central Nervous System: lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics. Gastrointestinal: nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis. Allergic pharyngitis and constipation; onesentence attential train-timotosis, ischemic Colitis. Allergia pranynglisi and agranulocytose, syrthematour sah, tever combined with activity and sore throat, laryngo-spassis and respiratory distress Respiratory, bronchospasm. Hernardsoigic agranuos spassis and respiratory to the propriet of the propriet and propriet and sore activities and conjunction and conjun lactate dehydrogenase

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- Each hexagonal-shaped, blue, scored tablet is embossed with an ' "INDERAL 20," contains 20 mg propranolol hydrochlonde, in bottles of 100 (NDC 0046 0422-81) and 1,000 (NDC 0046-0422-91). Also in unit dose package of 100 (NDC 0046-0422-91). 0422-99)
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- The appearance of these tablets is a trademark of Ayerst Laboratories Store at room temperature (approximately 25° C) INJECTABLE
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Reference: 1. Freis, E.D. Hypertension (Suppl. II) 3:230 (Nov-Dec.) 1981

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Global Review of Intrasplenic Pancreatic Pseudocysts: An Additional Case Report Using Preoperative Splenic Artery Embolization

NAE K. CHEUNG, M.D., AHMAD Z. NAJEM, M.D.,
NARENDRA P. MYNENI, M.D., RICHARD C. MALFITAN, M.D., Newark*

An unsuspected case of intrasplenic pancreatic pseudocyst was recognized at laparotomy. A search of the world literature disclosed an additional 30 cases, all of which were reviewed, summarized, and tabulated. Guidelines for early diagnosis are suggested, as the consequences of intrasplenic dissection may be lethal, including splenic rupture, hemorrhage, and infarction. To facilitate dissection and minimize bleeding, preoperative splenic artery embolization strongly is advocated.

o date, 30 cases of intrasplenic pancreatic pseudocysts have been reported in the world literature and the majority were unsuspected prior to surgery, 1,2,5,6,7,8,10,11,14 Although rare, this space-occupying lesion of the spleen and its relationship to pancreatitis and pancreatic pseudocysts should be suspected in all left upper quadrant pathology. 10 After appropriate diagnostic studies and confirmation at surgery, the entire complex can be treated rationally, and the life-threatening complications of splenic rupture, hemorrhage, or infarction can be minimized. To facilitate dissection and minimize bleeding, preoperative embolization of the splenic artery strongly is recommended.

CASE REPORT

A 46-year-old white, male horse trainer was admitted to the East Orange Veterans Administration Medical Center complaining of left upper quadrant pain and anorexia of six months' duration. Immediately prior to admission, the intensity of the pain increased with radiation to the left shoulder. Past history disclosed numerous falls from horses, the most recent episode occurring about six months ago. At that time, a chest x-ray was nonrevealing; however, because of persistent left upper quadrant discomfort, he sought additional medical attention and received symptomatic treatment. Additional past history disclosed heavy alcoholic consumption and numerous episodes of acute pancreatitis. Also, the patient had a four-year history of hypertension.

controlled with hydrochlorothiazide and a low-salt diet Physical examination disclosed a thin, afebrile, 52" male ir no acute distress with a BP of 140/90, R-18/min, P-90/min The pertinent physical findings included diminished breath sounds, dullness, and decreased vocal fremitus over the leflung base. A firm, nontender abdominal mass that moved with respiration was palpable 10 cm below the left costa margin. No bruits were present. The blood chemistrice essentially were normal, except for an elevated serun alkaline phosphatase of 158 SU, FBS of 174 mgm/dl, and a serum amylase exceeding 2,000 SU.

The chest x-ray revealed a left pleural effusion (Figure 1) A splenic angiogram disclosed splenomegaly, splaying of the splenic artery branches, and nonvisualization of the splenic vein (Figure 2). The left anterior oblique view of the splenic scan showed little splenic substance and was displaced inferiorly by a huge mass lesion, possibly arising within the splenic. The left lateral view showed a bilobed splenic rem nant, low in position with a suggestion of a large intrasplenimass lesion above it (Figure 3).

^{*}From the General Surgery Section, East Orange Veterans Adminis tration Medical Center, East Orange, Also, Dr. Cheung is Associat Professor of Surgery, Dr. Najem is Assistant Professor of Surgery, Dr. Myneni is Senior Surgical Resident, and Dr. Malfitan is Clinica Associate Professor of Surgery at UMDNJ-New Jersey Medica School. Correspondence may be addressed to Dr. Cheung, Chie General Surgery Section, Veterans Administration Medical Center East Orange, NJ 07019.



Figure 1—Left pleural effusion.

After preoperative gelfoam embolization of the splenic rtery (Figure 4), laparotomy disclosed multiple areas of fat recrosis and a large cystic mass in the left upper quadrant hat firmly was adherent to the posterior wall of the stomach nd the diaphragm. The body and tail of the pancreas were irm to palpation with some fullness in the lesser sac. Further lissection of the lesion from the diaphragm, colon, and idney revealed a huge splenic cystic mass with remnants of plenic tissue at its inferior and superior poles. In spite of xtensive dissection, blood loss was minimal; this was atributed primarily to the preoperative embolization of the plenic artery. In an attempt to free this structure from the osterior wall of the stomach, the cystic cavity inadvertently vas entered and approximately 1500 cc of a dark, murky, rown fluid was aspirated with an amylase content exceeding 6,000 SU. Further dissection demonstrated a communicaion between a smaller pseudocyst of the pancreas in the esser sac and the larger cystic mass (Figure 5). The larger yst with its splenic component was excised and the smaller yst was drained into the posterior wall of the stomach as a seudocystogastrostomy. A Foley catheter was inserted into he remaining retrogastric pseudocyst, brought through the tomach, and secured to the lateral abdominal wall. In the ensuing four weeks, the amount of drainage from the Foley atheter varied from 110 to 400 cc and, at times, its amylase leterminations exceeded 12,000 SU. At the conclusion of our weeks, the drainage ceased and the Foley catheter was emoved.

The specimen weighed 360 gm and measured 15.0 x 14.0 cm. Much of the splenic mass was occupied by an impty 12.0 x 10.0 x 4.0 cm cyst with an irregular, discolored vall (Figure 6). On histopathological examination, the



Figure 2A—Splenic arteriogram: Arterial phase demonstrating enlarged spleen with splaying of the artery branches.



Figure 2B-Venous phase: Splenic vein not visualized.



Figure 3—Splenic scan: Left lateral view demonstrating a bilobed splenic remnant with a suggestion of a large intrasplenic mass.



Figure 4—Preoperative gelfoam embolization of the splenic artery. Note decrease in vascularity compared with Figure 2 and presence of radiolucent intraluminal gelfoam.

Retrogastric Pancreatic Pseudocyst Esophagus Communicating Traci Splenic Trissue Splenic Tissue Pancreas Intrasplenic Pseudocyst

Figure 5-Illustration depicting operative findings.

greater portion of the spleen was replaced by a cystic structure that lacked a true epithelial lining and its wall consisted of necrotic tissue, fibrosis, and hemosiderin-laden macrophages. The splenic remnant showed a diminution of the white pulp with littoral cell hyperplasia (Figure 7).

DISCUSSION

The incidence of pancreatic pseudocyst developing in chronic pancreatitis is approximately 10 percent and its association with alcohol, gallbladder disease, and trauma is well documented. The exact mechanisms responsible for the development of the pseudocyst are unknown; however, it is postulated that contributory factors include initial pancreatic insult with subsequent ductal rupture, interference of the normal flow pattern of pancreatic juices, and the presence of active pancreatic parenchyma. Complications of these pseudocysts include obstruction, infection, perforation, dissection by extension, and intracystic or extracystic hemorrhage. 4-10

Pancreatic pseudocysts have been known to manifest themselves in a surprising variety of anatomical locations. It



Figure 6—Gross specimen of intrasplenic pancreat pseudocyst. Note polar displacement of splenic tissue.



Figure 7—Photomicrograph of histopathology demonstrating pseudoepithelial lining and a diminution of white pulp.

has been postulated that the pressure of the pancreati secretions and their potent enzymes actually can dissect for great distances, forming tracts that may communicate wit the posterior mediastinum and the neck, or extend along the right or left gutter and terminate in the scrotum. Pleur effusions may arise from spread through the esophages hiatus, erosion through the diaphragm, or via lymphatics.

In spite of the embryological and anatomical proximity of the pancreas with the spleen, the latter organ rarely affected intrinsically by pancreatic disease. ¹⁰ Bolivar has suggested some mechanisms for the development of in

TABLE 1

Paramount Features of 12 Cases of Intrasplenic Pancreatic Pseudocyst Reported by Paris et al.

		,	
1.	Abdominal pain	12/12 = 100%	
2.	Weight loss	11/12 = 90%	
3.	Male/female	11/1 = 0%	
4.	Anemia	6/12 = 50%	
5.	Fever	4/12 = 33%	
6.	Abdominal mass	6/12 = 50%	
7.	Left pleural effusion	5/12 = 42%	
8.	Hypoglycemia	2/12 = 16%	
9.	Elevated lipase/amylase	7/12 = 58%	
10.	X-ray abdomen, homogenous	3/12 = 25%	
	LUQ mass		
11.	Pancreatic calcification	3/12 = 25%	
12.	Splenectomy	12/12 = 100%	
13.	Informative arteriogram	5/12 = 42%	
14	Splenic vein thrombosis	5/12 = 42%	

asplenic pancreatic pseudocysts, including pancreatic hetrotopia with cystic changes, the direct action of pancreatic nzymes upon the intrasplenic vessels and parenchyma, and prombosis of the splenic artery or vein by pancreatitis ausing a splenic infarct or hematoma and subsequent quefaction.2 According to Dolan, heterotopic pancreatic ssue is uncommon and is usually of no clinical significance; f the 212 cases documented, the spleen was involved in only case.3 The case described by Roton of an intrasplenic ancreatic cyst secondary to ectopic pancreatic tissue is a arity.² as was the case of intrasplenic cystoadenocarcinoma f the pancreas documented by Shuman et al. 12 The natural ateway theory proposed by Warshaw, Moreau, and ismuth in which an expanding pseudocyst of the tail of the ancreas, aided by proteolytic enzymes, can penetrate the olenic hilus has validity.14

The largest series to date of splenic involvement by ancreatic pseudocyst is that of Paris et al. who discussed nd analyzed 12 cases (Table 1).8 The outstanding clinical atures of 19 additional cases of intrasplenic pseudocyst of e pancreas are presented in Tables 1 and 2. Fifteen of these ises had evidence of pancreatitis and of these patients, 13 ad elevated serum amylases. Pleural effusions, in associaon with pancreatic pseudocyst, have been reported in 20 to percent of the cases; and when the pathological process volved the spleen, this association increased to greater than percent. Abdominal pain was present in over 90 percent of e cases, with a preponderance for the left upper quadrant. he presence of a left upper quadrant mass, elevated serum urinary amylase, and a clinical picture of pancreatitis lould alert the physician to the possibility of a pancreatic seudocyst of the spleen.10 This combination was validated 6 of the 19 patients (30 percent) reviewed. In addition, over percent of the patients had a history of weight loss and 30 ercent of the patients presented with an elevated temrature. Although the clinical findings and the conventional agnostic studies are nonspecific for the preoperative agnosis of this entity, the presence of a left upper quadrant ass usually requires an upper gastrointestinal series, inavenous pyelogram, chest x-ray, and barium enema.13 The esence of diminished breath sounds, dullness to perission, and decreased vocal fremitus at the left lung base ay be elicited. And because the incidence of pleural efsion associated with this entity is high, a thoracentesis rongly is advocated for both amylase and protein derminations.

The clinical diagnosis of intrasplenic pancreatic pseudocyst is unlikely and, hence, more sophisticated diagnostic studies are recommended; these include splenic scan,^{2,9} selective angiography,^{2,13} and ultrasound.¹

The splenic scan using technetium (99m-Tc) may demonstrate a circumscribed area of absent uptake compatible with a splenic cyst, abscess, infarct, or occult rupture. However, the identification of two areas of splenic uptake widely separated by an area of absent uptake, the so-called binary splen image described by Pearson, has been reported as characteristic of a splenic pseudocyst if a bilobed spleen, a midsplenic infarct, and/or hematoma can be excluded.^{2,9}

The value of selective angiography for the diagnosis of obscure intraabdominal masses has been well documented. This angiogram often shows the intrasplenic arteries stretched, devoid of tertiary branches, and displaced around the periphery of the enlarged avascular spleen. The absence of neovascularization and the confinement of the splenic parenchyma to the periphery are considered characteristic of a benign cyst of the spleen.¹³ In addition, angiography may demonstrate the presence of an unsuspected splenic-artery pseudoaneurysm as well as the status of the splenic vein.2,14 Although these sophisticated tests may indicate the presence of this pancreatic-cystosplenic complex, the final diagnosis depends upon the findings of a high concentration of amylase in the contents of the cyst and the histopathological identification of a pancreatic pseudocyst, within the substance of the spleen.2

The dense fibrotic adhesions enveloping the tail of the pancreas and the spleen may precipitate splenic rupture following even the most minute trauma, although Warshaw postulates that the pathogenesis of splenic rupture is most likely an unrecognized intrasplenic pancreatic pseudocyst.¹⁴

"The presence of a left upper quadrant mass, elevated serum or urinary amylase, and a clinical picture of pancreatitis should alert the physician to the possibility of a pancreatic pseudocyst of the spleen."

If the associated lesions of the pancreas are discrete and there is an absence of other complications, then splenectomy would appear to be the treatment of choice; however, if there is a pancreatic ductal obstruction, associated pseudocyst, or a fistula communicating with the spleen, a more extensive surgical procedure would be indicated. Splenectomy and caudal pancreatectomy was the procedure of choice in over 60 percent of the cases reviewed. In the case presented, splenectomy and cystogastrostomy were the most feasible procedures.

SUMMARY

Thirty cases of intrasplenic pancreatic pseudocysts were abstracted from the literature and their clinical manifestations, diagnostic modalities, complications, pathological findings, and treatments reviewed.

In the case presented, the pancreatic origin of the splenic cyst was supported by the following criteria: a heavy alcoholic consumption with a past history of pancreatitis, ab-

				T Pancreatic Pse	TABLE 2 Pancreatic Pseudocyst of the Spleen	u		
Author	Age	Clinical Manifestations	**Amylase	X-ray	Angiography	Scinti Scan	Pathology	Treatment
Warshaw	33	Alcoholic, pancreatitis, pleural effusion, no mass, LUQ pain. Hypovolemic shock, abdominal paracentesis yielded nonclotting blood.	36 Russel U. (normal <25).	Left pleural effusion.			Bilocular pancreatic pseudocyst extending to spleen. Subcapsular hematoma. Splenic rupture into peritonal cavity.	Splenectomy and distal pancreatectomy.
Warshaw	4	Alcoholic, left chest pain, LUQ tenderness, no mass, fever.	Normal.	High fixed left dia- phragm, left pleural effu- sion, retro- gastric mass.	Avascular soft tissue mass behind stomach and superior to the splenic artery.		Pancreatic pseudocyst and pseudocyst of spleen in communication. Gastritis adjacent to pancreatic splenic mass.	Splenectomy and distal pancreatectomy and excision of a portion of posterior stomach wall.
Warshaw	88	Recurrent acute pancreatitis. Alcoholic, LUQ abdominal discomfort. Mass appeared later.	225-280u S (serum).	Retrogastric mass.	Avascular mass, splenic artery displaced and compressed in a caudad direction.	Mass rimmed medially by splenic tissue.	Pseudocyst extending through splenic hilum.	Splenectomy. Ex- cislon of pseudo- cyst.
Warshaw	99	Pancreatitis, LUQ pain, LUQ mass, fever.		Left pleural effusion.		Cystic mass with the spleen splayed around the mass.	Thrombosed splenic vein, pseudocyst extending into splenic hilus, subcapsular hematoma, and intracystic bleeding.	Splenectomy and distal pancreatectomy.
Ramer	27	LUQ pain and fullness. Discoid lupus.	450-1000 DYE units (normal 45-200). Cystic fluid > 1000u.	Retrogastric mass.	Enlarged spleen with avascular intraparenchymal masses.		Pseudocyst of pancreas extending into spleen, multiple splenic cysts.	Splenectomy and distal pancreatectomy.
Roton	35	Diffuse abdominal pain. Wandering enlarged spleen.	60u W.				Heterotopic intrasplenic pancreatitis with cyst formation.	Splenectomy.
Razemon	09	Weight loss, epigastric pain radiating posteriorly, LUQ mass.	Pleural effusion 104u W.	Left pleural effusion.			Pancreatitis, splenic vein thrombosed.	Splenectomy and caudal pancreatectomy.
Razemon	32	Weight loss, LUQ pain radiating to left shoulder, fever. Epigastric pain radiating posteriorly, LUQ mass, fever.	Preoperative urine 1200u W. Serum – 32u W. Pleural effusion 512u W.	Left pleural effusion.			Pancreatitis, splenic vein patent. Pancreatitis.	Splenectomy and pancreatectomy. Splenectomy.
Linquette	43	Weight loss, epigastric pain radiating to LUQ emesis.	Preoperative serum – 64u W.		Separation of two branches of splenic artery. Mass in splenic hilum.		Pancreatitis. Splenic vein thrombosed.	Subtotal splenectomy and caudal pancreatectomy.
Moreau	4	Acute pancreatitis.	Preoperative serum – 200-300u S.	Left pleural effusion.	Cavity on upper pole of spleen.		Pancreatitis.	Splenectomy and caudal pancreatectomy.

Splenectomy and caudal pancreatectomy.	Splenectomy.	Splenectomy and excision of extrasplenic pseudocyst.	Cystojejunostomy.	Splenectomy and distal pancreatectomy. Tube gastrostomy.	External drainage splenectomy.	Splenectomy and distal pancreatectomy.	Splenectomy and pseudocysto-gastrostomy.	
Pancreatic pseudocysts.	Pancreatitis.	Intrasplenic pseudocysts and pseudocyst at hilum of of spleen. Tail of pancreas fibrosed.	Large pseudocyst of pan- creas adherent and in- separable from spleen.	Ruptured pancreatic pseudocyst. Mass in pancreatic tail fused to splenic hilum.	Cyst involving distal half of pancreas. Cystic mass in spleen at second exploration.	Large cystic mass involving spleen through hilum and originating in tail of pancreas.	Pancreatic pseudocyst communicating with intrasplenic pancreatic pseudocyst.	
	Cavity upper pole of spleen. Two large separate	Cystic mass anterior to liver and LUQ intrasplenic cystic masses on following scan	Large defect lateral border of spleen.					
Cavity on upper pole of spleen.		Intrasplenic cystic masses.	Large avascular mass with stretch- ing of capsular branches.	Cystic mass in LUQ.	Avascular area of spleen.	Pseudocyst involving spleen.	Widely splayed splenic artery branches and avascular mass with subcapsular hematoma. Splenic vein thrombosis.	
	Left pleural effusion.	Large mass surrounding stomach ex- cept medially.	Extrinsic mass compressing greater curvature of standard	Left pleural effusion. Large retro- gastric mass.	Left pleural effusion. External compression on stomach.	Left pleural effusion.	Left pleural effusion.	
Preoperative serum - 185-512u S.	Postoperative intracystic fluid 30,000u S.	Serum – 500u S Cyst – 4000u S/cc.	Cyst - 3100u S/cc.	Serum — 120DYEu (N:<180DYEu). Serum — 200-670 DYEu. Urine — 10-22.6DYEu/min. (N: 0.66-5.43).	Serum – 560 Conway u. (N: 60-160u). Pleural fluid 400 Conway u. Cyst fluid – 2700 Conway u.	Serum – 172- 280u S.	Serum – 2050u S. cystic fluid 26,160uS.	Urine (24 hr.) 5-20u <8000u
Acute pancreatitis.	Weight loss, LUQ pain, epi- gastric soreness, palpable spleen, fever.	Alcoholic LUQ pain radiating to back, mass LUQ.	Alcoholic, weight loss, abdominal pain, hepatomegaly, LUQ mass, UGI bleeding.	Alcoholic, epigastric pain radiating to LUQ diaphoresis and hypotension indicating rupture.	Alcoholic, abdominal pain, poorly defined mass in epi- gastrium.	Alcoholic, history of pan- creatitis, abdominal pain.	LUQ mass with pain radi- ating to shoulder, alcoholic, pancreatitis, recurrent trauma.	Serum <10u 80-120u
39	V 74	33 A	35 A	27 A	27 A 9 B	34 C	46 L	rmal ran uth (W) (S)
Moreau	Bolivar	Farman	Farman	Shafiroff	Lazaro	Kothari	Author	**Usual normal ranges: Wohlgemuth (W) Somogyi (S)

dominal pain, left pleural effusion, elevated preoperative serum amylase, and a left upper quadrant mass. The selective angiogram and the splenic scan supported a cystosplenic complex. The markedly elevated amylase level obtained from the intrasplenic lesion reinforced the diagnosis of an intrasplenic pseudocyst of the pancreas and this was confirmed by histopathology. The preoperative gelfoam embolization, that minimized the operative bleeding and facilitated dissection, strongly is advocated. The role played by previous abdominal trauma in the development of this entity, at this time, is speculative.

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avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. CONTRAINDICATIONS: Contraindicated in persons with known or suspected cercinoma of the male breast. Contraindicated in the presence of severe liver to the contraindicated in the presence of severe liver cardiovascular several stimulation develop, discontinue therapy. In the male, prolonged administration or excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cauliously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. ADVERNE

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CASE REPORTS

Localization of Gastrointestinal Bleeding with Technetium 99m Sulfur Colloid Scintigraphy

JOHN A. PARRELLA, M.D., LEWIS J. WARSHAUER, M.D., DONALD ROTHMAN, M.D., Red Bank*

Determination of active gastrointestinal bleeding and identification of the exact site of bleeding is a difficult task. The following case report illustrates the use of technetium 99m sulfur colloid to localize bleeding.

roper management of acute gastrointestinal bleeding requires prompt localization of the bleeding site; only then can appropriate medical and surgical therapy begin. Endoscopy and upper gastrointestinal series often successfully assess and localize acute upper gastrointestinal bleeding. Lower gastrointestinal bleeding, however, poses more of a dilemma. Endoscopy and barium studies have limitations in the face of acute rectal bleeding. Angiography often is negative when the rate of hemorrhage is too slow. The radionuclide bleeding scan is performed easily and offers an appropriate first step in the diagnosis of acute lower gastrointestinal bleeding.

CASE REPORT

An 83-year-old female with a past history of duodenal ulcer, hypothyroidism, and rheumatic arthritis was admitted to Riverview Hospital for treatment of massive rectal hemorrhage. On admission, her blood pressure was 110/70 and hemoglobin 10 gm/dl. Sigmoidoscopy, which was performed in the emergency room, was negative.

The patient's blood pressure fell to 80/60 and blood transfusions were begun. The patient was brought to the Nuclear Medicine Department and a GI bleeding scan was performed using 10mCi of technetium 99m sulfur colloid. Imaging of the abdomen was done in the anterior position sequentially up to 35 minutes following the intravenous injection of the isotope. Increased activity first was noted in

the right lower quadrant on an image done at 12 minutes postinjection (Figure 1). On a repeat image done at 35 minutes (Figure 2), the increased activity in the right lower quadrant persisted. A decision was made to try to stop the bleeding using an intraarterial drip of vasopressin; therefore, an angiogram was performed. Since the bleeding scan showed increased activity in the right lower quadrant, it was assumed that the patient was bleeding from the ascending colon. A superior mesenteric arteriogram revealed extravasation of contrast material in the ascending colon. The pooling of contrast material was noted on the early and late arterial phases of the study (Figures 3 and 4).

Vasopressin was infused intraarterially and a repeat superior mesenteric arteriogram was performed 20 minutes later. The repeat study showed no extravasation of contrast material in the ascending colon as was noted on the arteriogram before vasopressin infusion (Figure 5).

The patient was returned to the Intensive Care Unit for observation.

There was no further bleeding until 48 hours after the intraarterial infusion of vasopressin, at which time the patient's blood pressure fell again. It was felt that surgery should be performed and the patient underwent a right hemicolectomy.

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Figure 1—99m-Tc sulfur colloid scan done 12 minutes after the injection of the radionuclide shows an area of increased uptake in the right lower guadrant. Scan is done anteriorly.



Figure 2—Followup scan done 35 minutes postinjection shows the same area of increased radioactivity in the right lower quadrant as noted on earlier scan.

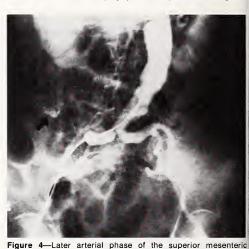


Figure 3—Early arterial phase of selective superior mesenteric arteriogram shows extravasation of contrast material, right lower quadrant, site of increased radioactivity noted on the radionuclide scan.

The pathological examination of the right colon revealed numerous diverticula. The patient had an uneventful postoperative course and was discharged from the hospital approximately two weeks following surgery.

DISCUSSION

Alavi et al. have the largest experience using technetium 99m sulfur colloid in the diagnosis of acute gastrointestinal bleeding. Of 120 patients with clinical evidence of lower gastrointestinal bleeding, 90 had no scintigraphic evidence of active bleeding. Fifteen of the 90 patients with negative scintigrams had negative angiography. The remaining 75 patients were not studied by arteriography because the hemorrhage stopped spontaneously. Of the 30 patients with positive scintigraphic evidence of extravasation, fewer than half underwent arteriography. Although all arteriograms



right 4—Later arterial phase of the superior mesenteric arteriogram shows marked extravasation of contrast material in the right lower quadrant as noted on earlier scan.

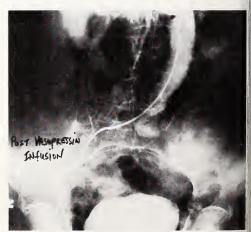


Figure 5—Repeat superior mesenteric arteriogram done after the intraarterial infusion of vasopressin. The extravasation of contrast material noted in the right lower quadrant no longer is present.

were obtained within a few hours of scanning, only 7 patients had angiographic demonstration of extravasation.

Seventy percent of the patients who were bleeding had colonic lesions such as angiodysplasia, arteriovenous malformations, diverticulitis, ischemic colitis, and miscellaneous rectal lesions.² The bleeding appeared to originate in the small bowel in the remaining patients.

"In patients with suspected gastrointestinal bleeding below the ligament of Treitz and above the limits of sigmoidoscopy, technetium 99m sulfur colloid scanning offers a sensitive screening examination to identify the presence of active bleeding."

In patients with suspected gastrointestinal bleeding below the ligament of Treitz and above the limits of the sigmoidoscopy, technetium 99m sulfur colloid scanning offers a sensitive screening examination to identify the presence of active bleeding; the bleeding site frequently is located as well. The radionuclide gastrointestinal bleeding examination should be performed before angiography; if the study is positive, angiography should be considered immediately to enhance the possibility of identifying the site of hemorrhage. This procedure may label those patients in whom bleeding may be controlled by intraarterial infusion of vasopressin.

Radionuclide studies have been employed effectively as screening examinations to increase the sensitivity of more invasive diagnostic tests and, as more experience is obtained, radionuclide studies are expected to play a larger role in detection, localization, quantification, and treatment of gastrointestinal bleeding.

SUMMARY

Radionuclide studies have been employed effectively as screening examinations to increase the sensitivity of more invasive diagnostic tests. This case study illustrates how the technetium 99m sulfur colloid bleeding scan, as a first step, can guide the diagnosis and management of acute lower intestinal hemorrhage. The radionuclide study makes it possible to plan the appropriate angiographic approach and subsequent therapy. Alone or in conjunction with angiography, the radionuclide bleeding scan also can be used as a guide to the surgeon. As more experience is obtained, the radionuclide bleeding scan is expected to play a larger role in the evaluation of lower gastrointestinal bleeding.

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THE MULTIVITAMIN/MINERAL FORMULATION

Case of Turcot Syndrome: Dilemma Resolved

DONALD ROTHMAN, M.D., CHEN PANG SU, M.D., NURI M. KALKAY, M.D., Holmdel*

This clinical followup of a case of Turcot syndrome (brain tumor-colon polyposis) indicates the difficult decisions in management. This communication updates the course of a patient whose case report previously was published in *Diseases of the Colon & Rectum*.

n 1975, a dilemma was presented to the readers of *Diseases of the Colon & Rectum* in the case of a 28-year-old man with the glioma-polyposis syndrome.¹ Turcot reported 2 cases of familial polyposis of the colon associated with tumors of the central nervous system in 1959.² There are currently 18 cases reported in the literature.³ The dilemma was whether to recommend total colectomy in view of the extensive carpet of polyps at high risk for neoplastic transformation or observe the patient in view of his guarded prognosis following partial resection and radiotherapy for a right cerebellar medulloblastoma. We would like to update the course seven years later.

CASE REPORT

On October 5, 1970, a 25-year-old man had a subtotal resection of a right cerebellar medulloblastoma infiltrating the brain stem. This was followed by a course of whole-brain radiotherapy. Neurologically, he had a persistent unsteady gait, but he was able to function; his mentation was impaired slightly.

He was admitted to Bayshore Community Hospital on April 16, 1974, for rectal bleeding and anemia. Sigmoid-oscopy indicated a generalized polyposis; a random biopsy was benign and barium enema confirmed total colonic polyp involvement. Transfusion with two units of blood stabilized the anemia and he was discharged. The patient stated that his father died of a myocardial infarction in his 30s and his

mother died of carcinoma of the uterus. (Smith alludes to a polyposis uterine carcinoma syndrome.4) Two older brothers are living and well and the patient's two young children are healthy. According to the patient, none of his relatives are known to have any manifestations of the syndrome, although one uncle allegedly had several colonic polyps removed.

The patient is examined regularly as an outpatient and now is 37 years old. He has had no exacerbation of his neurological symptoms. Although he is unemployed, he can care for himself and carry on a reasonable conversation. A repeat brain scan indicated no recurrence of medulloblastoma.

In 1978, his CEA was 5.4 and barium enema examinations done in 1974, 1975, and 1977 revealed no evidence of malignancy. On May 7, 1981, a CEA value of 8.3 ng/ml was obtained. The patient described increasing rectal bleeding (a periodic symptom), gaseousness, and slight weight loss. Barium enema examination in March, 1981, was unchanged (Figure 1). Colonoscopy indicated multiple polyps in the cecum; random biopsies were negative for carcinoma.

On May 13, 1981, he underwent total colectomy, resection of the rectum, and ileostomy. A liver cyst, 1 cm in diameter, was aspirated and cytology was negative. In the cecum, there was a 3 cm ulcerated carcinoma (Figure 2) with

^{*}From the Departments of Surgery, Medicine, and Gastroenterology, Bayshore Community Hospital, Holmdel. Correspondence may be addressed to Dr. Rothman, 565 Highway 35, Red Bank, NJ 07701.



Figure 1—Barium-filled colonic segment shows numerous polyps.

one positive lymph node. He was discharged in ten days without complications.

DISCUSSION

In 1974, when the patient was a three-and-a-half year survivor of treatment for medulloblastoma, we were reluctant to advise total colectomy since the chance of survivorship and cure after surgery and radiation for this lesion is only 30 to 40 percent. Electing to observe the patient left the followup a difficult task. One could not use symptoms alone (bleeding and vague bowel complaints) since they always were present. Barium enema examination and colonoscopy could not depict the early lesion. The CEA test



Figure 2—Opened cecal segment on gross examination shows innumerable benign polyps and ulcerated carcinoma (arrow).

was useful to force our hand. One could have made a strong case to operate sooner. The chance of cancer in polyposis is 100 percent by the age of 40; therefore, the survivor of a medulloblastoma at the age of 28 certainly will develop colon cancer in 1 to 12 years. The decisions in 1975 were more difficult than in 1981 since the patient had demonstrated survivorship of his medulloblastoma.

The dilemma now has been resolved. At the present time, the patient has made a complete recovery from his colonic surgery. He has elected not to have chemotherapy and the current plan is close clinical followup.

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Commentary

BENJAMIN F. RUSH, JR., M.D., Newark

Rothman, Su, and Kalkay have described the long-term ollowup of a medical dilemma—Turcot syndrome. The liscussion provides a fascinating glimpse into the constant roblem of weighing estimates of risk versus estimates of enefits in order to reach the best possible conclusion in the interest of the patient.

I have little quarrel with the original decision of Dr. Rothman and his colleagues that the risk of operation and the discomfort of a permanent ileostomy were unneeded in a patient who appeared likely to succumb to a recurrence of his brain tumor over a relatively short period. His unexpectedly long survival was a delightful development; however, he was

exposed to an increasing risk of carcinoma of the rectum as it turned out in the second report. Hopefully, the patient will survive this tumor as well. If he does so, he may be the sole reported case of cure in a patient with this problem.

As is noted, the risk of developing cancer of the colon in a patient with multiple polyposis reaches 100 percent by age 40. Ordinarily, the surgeon does not have to decide if the operation is needed but only when he is to do it. There is a tendency to try to postpone, as long as possible, the total resection of rectum and colon in order to avoid the problems of carrying a patient through childhood and adolescence with a permanent ileostomy. Surgical progress fortunately has made this difficult decision no longer necessary. In 1978, Fonkalsrud reported a new technique for devising a pouch made from loops of ileum. Stripping the mucosa from the rectum down to the dentate line, the ileum and pouch then are brought down to the pelvis where the distal ileum is intussuscepted into the remaining cylinder of rectal muscle and anastomosed to the dentate line from below. The initial procedure had a number of technical problems and some complications that were corrected by modifications in the procedure which were published in Annals of Surgery. Fonkalsrud claimed that following his most recent procedure his patients have retained excellent continence and have had no difficulty with diarrhea.

At UMDNJ-New Jersey Medical School we have carried out four of these procedures; three at University Hospital and one at the East Orange Veterans Administration. Two procedures were done for multiple polyposis, one procedure was performed for ulcerative colitis, and one procedure was done for a rare case of multiple congenital bleeding varices of the large bowel. Of these four cases, one case immediately is postoperative but in three cases we have had followups of from several months to two years and in our three patients all have achieved excellent continence. Since this is such a new procedure, its acceptance will require another two or three years of observation as surgeons become familiar with it. However, based on our very modest experience, it appears that the procedure holds great promise and in the future will make early proctocolectomy much more acceptable in patients with these hazardous lesions.

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THERAPEUTIC DRUG INFORMATION

New Drugs: Part Three

This information is compiled by the International Pharmaceutic Drug Information Center (IDIC), affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences of Long Island University.*

n response to numerous requests, the following information concerning new drugs marketed in 1981 is provided in a four-part series. This article is part three.

FLUNISOLIDE (NASALIDE®; SYNTEX)

Flunisolide is a corticosteroid structurally related to luocinolone acetonide for intranasal use. It is indicated for he relief of the symptoms of seasonal or perennial rhinitis when effectiveness of conventional therapy is unsatisfactory or tolerance develops. When beginning flunisolide therapy in patients previously treated for prolonged periods with sysemic corticosteriods, patients should be monitored closely or signs and symptoms of adrenal insufficiency. Flunisolide hould be used with caution, if at all, in patients with uberculosis, respiratory infection, or in untreated fungal, pacterial, or systemic viral infections or ocular herpes implex. It also should be administered cautiously to patients eceiving alternate-day prednisone therapy due to the inreased likelihood of adrenal suppression as well as in patients with recent nasal surgery or trauma. Flunisolide is contraindicated in patients who have exhibited hyperensitivity to any of its ingredients. It should be administered o pregnant or nursing women only if the potential benefit ustifies the potential risk.

The most frequent adverse effects reported were burning and stinging of the nasal mucosa. Other adverse effects nelude nasal congestion, sneezing, epistaxis, nasal irritation, vatery eyes, sore throat, nausea, vomiting, headaches, and oss of sense of smell and taste. Systemic corticosteroid dverse effects have not been reported, but this possibility hould be considered.

The usual adult dosage is two sprays (50 mcg) in each ostril twice daily, which may be increased to a maximal laily dosage of eight sprays in each nostril. The usual dosage or children 6 to 14 years of age is one spray in each nostril wice daily. Patients should be advised that symptomatic elief may not be seen for up to two weeks after therapy is

initiated. Refer to the package insert for complete dosage information.

HALAZEPAM (PAXIPAM®; SCHERING)

Halazepam is a benzodiazepine derivative indicated for the management of anxiety disorders or short-term relief of the symptoms of anxiety. Anxiolytics should not be used for the treatment of anxiety, stress, or tension associated with everyday life. Effectiveness of halazepam has not been established in long-term use (greater than four months) and usefulness should be evaluated periodically. Halazepam is contraindicated in patients who are hypersensitive to it or to other benzodiazepines and in patients with acute narrowangle glaucoma. It should not be administered during the first trimester of pregnancy or to nursing mothers. Safety in patients below the age of 18 has not been established. Halazepam should be used with caution in elderly or debilitated patients as well as in patients with impaired renal or hepatic function.

The most frequently occurring adverse reaction was drowsiness. Other less frequent CNS adverse effects include headache, apathy, psychomotor retardation, disorientation, dysarthria, depression, confusion, euphoria, dizziness, syncope, and fatigue. Gastrointestinal disturbances noted include nausea and vomiting, constipation, increased salivation, and difficulty in swallowing. Refer to the package insert for a listing of less frequent adverse effects.

Halazepam, as well as other benzodiazepines, causes additive CNS depressant effects when administered with other

^{*}The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians. The Director of the Center is Jack M. Rosenberg, Pharm. D., Ph.D.; the Consultant is Walter A. Modell, M.D. This month's column was prepared by J.M. Rosenberg, Pharm. D., Ph.D.; H.L. Kirschenbaum, Pharm. D.; Ghazala Saleem, M. Pharm., M.S.; Jayne Ritz, R.Ph.; and Frances P. Martino, R.Ph. Correspondence may be addressed to the International Pharmaceutic Drug Information Center, 81 DeKalb Avenue, Brooklyn, NY 11201.

psychotropic agents, antihistamines, anticonvulsants, ethanol, and other drugs which produce CNS depression.

KETOCONAZOLE (NIZORAL®; JANSSEN)

Ketoconazole is a synthetic antifungal agent indicated for treatment of candidiasis, chronic mucocutaneous candidiasis, oral thrush, candiduria, coccidioidomycosis, histoplasmosis, chromomycosis, and paracoccidioidomycosis. It should not be used for fungal meningitis because of poor penetration into cerebral spinal fluid. The drug is contraindicated in patients who have shown hypersensitivity to it. Ketoconazole requires an acidic medium for dissolution and absorption. As ketoconazole has been shown to produce teratogenic effects in rats and is excreted in breast milk, it probably should not be administered during pregnancy or to nursing mothers. Clinical experience in children less than two years of age is limited.

Most reported adverse reactions have been mild and transient, and rarely required discontinuing therapy. Frequently reported adverse reactions were nausea and/or vomiting, abdominal pain, and pruritus. Less frequently reported adverse effects include headache, dizziness, somnolence, fever and chills, photophobia, diarrhea, and transient increases in liver enzymes.

As achlorhydria decreases ketoconazole absorption, anticholinergics, H₂-receptor blockers (e.g. cimetidine), and antacids should be administered at least two hours after ketoconazole.

The usual adult dose is a single daily administration of 200 mg that may be increased to 400 mg in serious infections or if clinical response is not adequate. Children weighing 20 kg or less should receive 50 mg once daily, 20 to 40 kg children should receive 100 mg once daily, and children weighing over 40 kg should receive 200 mg once daily. Duration of therapy is dependent upon the condition being treated, and may exceed six months.

MAPROTILINE HYDROCHLORIDE (LUDIOMIL®; CIBA)

Maprotiline belongs to a new class of compounds known as tetracyclic antidepressants. It is indicated for the treatment of depressive illness in patients with depressive neurosis and manic-depressive illness, depressed type. Maprotiline is contraindicated in patients who have shown hypersensitivity to it and in patients with known or suspected seizure disorders. It should be used with extreme caution in patients with a history of myocardial infarction or any other type of cardiovascular disease. Due to its anticholinergic activity, maprotiline should be administered cautiously to patients with increased intraocular pressure, history of urinary retention, or narrow-angle glaucoma. Maprotiline should be discontinued for as long as feasible prior to surgery. Safety in pregnancy and nursing mothers is not established.

Most adverse reactions noted are similar to those observed with tricyclic antidepressants. Psychiatric and neurological adverse effects include drowsiness reported in 16 percent of the patients; dizziness in 8 percent of patients; nervousness in

6 percent of patients; and anxiety, insomnia, agitation, and tremors in 2 to 4 percent of patients. The major anticholinergic effect observed in 22 percent of patients was dry mouth, while 6 percent of patients suffered from constipation, and 4 percent of patients developed blurred vision. Nausea, weakness, fatigue, and headache also have been noted in 2 to 4 percent of patients. Rare occurrences of cardiovascular side effects such as hypotension, hypertension, tachycardia, palpitation, arrhythmias, heart block, and syncope have been reported. Other adverse effects encountered with tricyclic antidepressants should be considered. For other less frequently reported adverse reactions, consult the package insert.

Caution should be used when administering maprotiline with anticholinergic or sympathomimetic drugs because of the possibility of additive atropine-like effects. Administration of maprotiline to hyperthyroid patients or those receiving thyroid medication may enhance the potential for cardiovascular toxicity. Maprotiline may enhance the response to alcohol, barbiturates, and other CNS depressants. Maprotiline may interact with general anesthetics and should be discontinued before elective surgery as little is known about the interaction between maprotiline and general anesthetics. A minimum of 14 days should elapse between discontinuation of MAO therapy and initiation of maprotiline.

MEZLOCILLIN SODIUM (MEZLIN®; MILES)

Mezlocillin sodium is a semisynthetic, broad-spectrum penicillin for parenteral administration. It is indicated for the treatment of pelvic infections, urinary tract infections, various other serious infections, and infections in patients with cancer caused by susceptible gram positive and gram negative bacteria. It is contraindicated in patients with a history of allergy to any of the penicillins. As mezlocillin is excreted in the breast milk, caution should be exercised when administering it to nursing mothers. Safe use in pregnancy has not been established.

Adverse reactions reported in patients receiving mezlocillin include abnormalities in normal taste sensation nausea, vomiting, diarrhea, hypersensitivity reactions such as pruritus, urticaria, drug fever, and anaphylactic reactions mild increase in serum SGOT, SGPT, alkaline phosphatase, and bilirubin, reversible neutropenia, leukopenia, thrombocytopenia, and eosinophilia. In addition, local reactions such as thrombophlebitis and pain at the site of the injectior have occured.

As with other penicillins, concomitant administration of probenecid will increase serum concentrations and prolong serum half-life by interfering with renal tubular secretions of mezlocillin. Mezlocillin should not be mixed with aminoglycosides in solutions for parenteral administration because of substantial inactivation of the aminoglycoside.

Dosage depends upon the type of infection being treated and in normal adults ranges from 6 to 24 g/day. Refer to the insert for complete dosage information.

First Class First Aid



• Broad-spectrum antibacterial // • Handy applicator tip

Each gram contains: Aerosporin $^\infty$ (Polymyxin B Sulfate) 5,000 units, 000 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); rolatum qs; in tubes of 1 oz and $\frac{1}{2}$ oz and $\frac{1}{2}$ oz (approx.) foil packets Therapourically, in clues of 102 and 752 and 752 oc (approx.) four packets of Therapourically, it as an adjunct to systemic therapy when indicated), for , primary or secondary due to susceptible organisms, as in * infected s. surgical incisions, otitis externa * primary pyodermas (impetigo, vulgaris, paronychia) * secondarily infected dermatoses (eczema, herpes, ermatilis) * Irumanta lesions, inflamed or supportating as a result of 1. Prophylactically, the ontiment may be used to prevent hacterial contaminating or a contamination of the properties of the propertie

TTONS: Not for use in the eyes or in the external ear canal perforated. This product is contraindicated in those individuals hypersensitivity to any of its components.

use of the potential hazard of nephrotoxicity and ototoxicity due should be exercised when using this product in treating extensive eration and other extensive conditions where absorption of neo-

myon is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoplycoside antibiotics concurrently, not more than one application a day is recommended.

antibiotics concurrently, not more than one application a day is recommended. When using neomycin-containing products to control secondary infection in the chronic dermaloses, it should be borne in mind that the skin is more liable to become sensitized to no enough on the maintestation of sensitization to neomycin. The maintestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and iching, it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms repress guickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section). Complete literature available on request from Professional Services Dept. PML



MEOSPORIN OINTHENT IN B-BACITRACINA

PEDIATRIC BRIEFS

Selected Abstracts with Comments*

Whitfield MF, et al.: Validity of routine clinical test weighing as a measure of the intake of breast-fed infants. *Arch Dis Child* 56:919, 1981.

To determine infant breast milk intake, weighing the infant before and after feeds is a common practice. To test this practice, bottle-fed infants were weighed before and after a feed of known volume (weight). Despite the care in weighing, variations from actual were too great to be of clinical value. "The best guide to adequate nutrition of the breast-fed infant must remain adequate growth."

Comment: This, of course, is "the forest versus the trees" argument. If the forest is flourishing, do not count the trees. What if the forest is not flourishing? I think a careful social-environmental and medical history almost always will answer the question.

Hill DJ, et al.: Failure of hyposensitization in treatment of children with grass pollen asthma. *Br Med J* 284:306, 1982.

In an elegant but small study 20 children with proved ryegrass pollen-induced asthma, some were hyposensitized. An immunological response was noted (elevated IgG, blocking antibodies) but there was no clinical benefit. "Despite convincing in vitro evidence that patients given hyposensitization treatment developed increased concentrations of both specific IgG and IgE anti-rye antibodies compared with the patients given placebo injections, the natural seasonal exposure to the rye allergen appeared to override these changes."

Comment: The debate continues. A voidance is best; if one cannot avoid, then desensitize, treat symptoms, or both. This small study supports evidence not to desensitize. I wonder if desensitization would occur as frequently in a differently organized medical care system? Is our fee-for-service system perpetuating a questionable therapy? Are we struggling with a tough problem (pollen asthma) that does not seem to be solved easily?

Ashcraft KW, et al.: Treatment of gastroesophageal reflux (GER) in children by thal fundoplication. *J Thor Cardiovasc Surg* 82:706, 1981.

In seven years, 362 patients underwent fundoplication "for symptoms referable to gastroesophageal reflux" in Kansas City. Ninety percent had a satisfactory result. The diagnosis of GER was "established by barium study alone" in 267 patients (74 percent).

Comment: In a commentary, Dr. R. Belsey stated: "We have an antique British principle that diagnosis precedes treatment From the (authors') figures, I rather gather that only 27 of their patients had any objective tests being conducted to determine whether there was, in fact, reflux either before or after the operation." It is amazing to me that

we see so few patients with this problem. I seriously am concerned that others are seeing so much. Chalasia (an open cardia) is a normal finding in the first year of life and reflux, therefore, is a matter of degree and problems resulting. As with breast-feeding, the forest must be evaluated. However, even when a child is failing to thrive and has some degree of regurgitation on barium swallow, the likelihood of reflux as the cause, in our experience, is not as great as other social-environmental causes.

I cannot urge caution strongly enough. We have manipulated children and patients through the ages because of our failure to be self-critical. I believe this paper speaks loudly for a more critical approach to GER although the authors did not have that in mind.

Oliver MF: Risks of correcting the risks of coronary disease and stroke with drugs. N Engl J Med 306:297, 1982.

Too little concern has been raised over the unexpected adverse reactions to drugs given prophylactically in risk reduction attempts. Should we expose otherwise healthy patients to long-term drug administration for risk reductior "only if the drugs are safe and effective?" Because these drugs unequivocally are not safe, "the best answer is to improve lifestyle and decrease obesity and salt intake . . . This surely is preferable to exposing them indefinitely to drugs whose actions we fully do not understand, in the hope of reducing a very mild increase in risk." We must "limit the use of drugs for long-term prophylaxis only to situations ir which the benefit far outweighs any possible risk. Aggressive ness in the use of these drugs should be inversely proportional to age. Perhaps it is even advisable, until the causes o the many facets of vascular disease are established, to restric drugs to secondary prevention and the alleviation of symp toms."

Corbeel L, et al.: Ultrastructural abnormalities of bronchia cilia in children with recurrent airway infections and bronchiec tasis. *Arch Dis Child* 56:929, 1981.

Abnormalities of cilia now have been noted in a group o illnesses characterized by repeated and severe respirator infections including Kartagener's triad. However, the im motile cilia syndrome may be heterogeneous. In a smal group of affected children, the ultrastructure of bronchia

*Abstracts are from the Department of Pediatrics Newsletter UMDNJ-New Jersey Medical School, Newark-Wol. 7, No. 3 Selections are made by Richard H. Rapkin, M.D., Professor o Pediatrics and Medical Director of Children's Hospital, Newark who is Editor; and Coeditors, Franklin C. Behrle, M.D., Professo and Chairman of Pediatrics and Shyan C. Sun, M.D., Associat Professor of Pediatrics and Director of Neonatology, Children' Hospital, Newark. Comments are prepared by them and thei associates.

cilia was studied and found to be abnormal, but in four children the abnormalities disappeared upon clinical recovery! This suggests that these anomalies may have been acquired.

Comment: This is a new finding which, if confirmed, has significance in our understanding of pathogenesis. Can certain pathogens damage cilia? Do they do their dirty work by affecting mucociliary clearance? We suspected so, but previously had no real idea how.

Barin F, et al.: Immune response in neonates to hepatitis B vaccine. *Lancet* 1:251, 1982.

Alum hepatitis B vaccine was given to 26 Senegalese infants (three injections at one-month intervals) and was safe and immunogenic. For children born of mothers with hepatitis B, this vaccine likely is effective. The combination of HBIg and vaccine may offer complete and long-lasting immunity but this remains to be evaluated further.

Hadler SC, et al.: Risk factors for hepatitis A in day-care centers. J Infec Dis 145:255, 1982.

Very young children are linked epidemiologically to the spread of hepatitis A in day-care centers. The presence of young children in diapers seems to be critical. Day-care centers can be grouped into high risk (young children in diapers) and low risk, the latter serving as a preschool. Disease prevention rests primarily, therefore, on hand washing of young children and staff who care for them; proper cleaning of diaper-changing areas. "After an index case of hepatitis occurs in a center, it may be necessary to administer IgG to children and staff.... Because of the high likelihood of spread after even one case at a center that enrolls children in diapers, all children and employees probably should be given IgG...."

Kleinman JC, et al.: Use of ambulatory medical care by the poor: Another look at equity. *Med Care* 19:1011, 1981.

The purpose of this article is to present new results on access to medical care by the poor based on the National Health Interview Survey (NHIS) for 1976 to 1978. These results are compared to the conclusions in a recent book by Aday, Anderson, and Fleming that stated that while some problems of access persist, utilization of medical services is fairly equitable.

The National Health Interview Survey was conducted by the National Center for Health Statistics and is a probability sample of the civilian noninstitutional population with 110,000 respondents in 40,000 households each year. Numerous studies have shown that the poor have worse health status than the nonpoor. The data from NHIS show before adjustment for health status, blacks and the poor, ages 17 to 64, use more physician visits than their nonpoor counterparts. After adjusting for age and health status, these differences are reversed. For children under age 17, the data showed large income and racial differences.

Many different studies agree with the NHIS data that blacks and the poor are more likely to use hospital clinics and less likely to use private physician offices or telephone consultations.

The second consistent result is a deficit by the poor in the use of preventive procedures. Compared to those with higher

incomes, the poor are less likely to receive breast examinations, Pap smears, prenatal care, immunizations against childhood diseases, or dental care. It would appear from the present evidence, the authors conclude, that still further progress is required to achieve the goal of equity in the distribution of medical care services.

This article raises significant policy concerns for our pediatric ambulatory programs in inner cities. These data show conclusively that the "clinic" population has unmet health care needs which should be the focus of the ambulatory program. Our program and others should provide continuing comprehensive health care directed toward preventive, nutritional, environmental, educational, and self-care principles with the goal of reducing the types of morbidity, mortality, and functional impairment that abound in such service areas. (J. Alexander, M.D.)

Goldstein DP, et al.: Breast masses in adolescent females. Clin Pediatr 21:17, 1982.

The authors reviewed the records of 51 female patients between the ages 8 and 20 years who underwent excision of breast masses. Fibroadenoma accounted for the majority of masses (81.4 percent). The rest of the lesions were benign and there were no malignancies.

Results of this study are consistent with previous reports that stress the generally benign nature of breast masses in the under-20 age group.

A conservative approach to the management of juvenile breast masses is needed by pediatricians, yet the concerns of the patient and families must be addressed. The following approach is suggested by the authors:

- 1. Careful and repeated physical examinations. The majority of breast masses are ductal hypertrophy or cysts and resolve spontaneously over a two- to three-month period. Multiple masses, bilateral involvement, and tenderness to palpation suggest intraductal hypertrophy. A persistent breast mass is usually firm, rubbery, and mobile with a smooth or slightly irregular surface. Tumors generally are eccentric in position and tend to occur more frequently in the lateral breast quadrants than in the medial quadrant.
- 2. Needle aspiration should be performed when technically possible on a mass that persists for three months. If the mass collapses, it is assumed to be a cyst and should be reevaluated for reoccurrence.
- 3. When aspiration is not feasible or nonproductive or when masses are enlarging, are tender, or are a source of considerable anxiety, excisional biopsy should be performed. Circumareolar excisions are preferred whenever anatomically possible for excellent cosmetic results.

Comment: Abnormalities of breast development frequently are a source of great anxiety in both patient and parent. This probably is related in great measure to our cultural fixation on the female breast and national publicity regarding breast cancer in the adult female. It is important for the pediatrician to realize that much reassurance and support are needed for the adolescent female and her family at a time where body image and physical changes are scrutinized so closely.

Breast self-examination should be taught to every teenager as a preventive health technique. (P. Stanford, M.D.)

WHAT IS YOUR OPINION?*

Who's Afraid of the Big, Bad Medical Assistant?

ALEXANDER D. KOVACS, M.D., Scotch Plains**

n May, our House of Delegates voted down a resolution that urged individual physicians to pay the dues of their medical assistants in the New Jersey Chapter of the American Association of Medical Assistants. This was not my resolution but I thought it was fair and I was surprised by the action of the House.

What really shook me, however, were the reasons advanced for its rejection. A prime reason was that these assistants then would turn upon us and make demands.

It is not my intention here to defend the medical assistants organization. In my opinion, its primary purpose clearly seems to be to improve the training of our medical assistants and I see no reason to fear such a group. However, if that is your hangup, so be it.

What prompts me to write is the growing paranoia of our profession. We have been threatened so often by so many that we are beginning to be afraid of our own shadows.

Do we have reason to be fearful? Frankly, yes. The State Board of Medical Examiners? Absolutely. Hospitals taking over private practice? Hell, yes. Physicians' assistants? Okay. Nurse practitioners? Well, maybe. Medical assistants? Somehow I do not believe that the girl in my office who is my right hand, makes my appointments, keeps the traffic flowing smoothly, placates the patients I have no time to talk to, keeps my books straight, makes sure I have some money to take home once in a while, and remembers to send flowers to my wife on our anniversary really is out to get me.

Our assistants have as much right to be proud of their professional organization as we have to be proud of ours.

Paying my assistant's dues in that organization is one of the best investments I can make and it is tax deductible.

Any organization that is going to educate her will help me. Any training she gets to increase her value to me, I am happy to pay for. A doctor who believes in keeping a medical assistant poor and ignorant really is insecure.

Are you afraid she is going to ask for more money? If so, maybe deep down you know that you are not paying her what she is worth. Every person reflects in his/her work the opinion an employer has of him/her and that opinion is expressed most clearly through the medium of the paycheck.

A good assistant makes money for you and should be well compensated. A bad assistant can get you sued, alienate patients, get you into trouble with the IRS, and keep you wondering how come you are so busy you do not have time to go to the bathroom and yet, at the end of the month, you cannot meet your overhead.

There may be a lot of things for us to get paranoid about but this is not one of them. Somehow, I feel confident that no matter how many courses she takes, I am always going to know a little more medicine than my medical assistant.

^{*}We encourage our readers to write opinions on topics of interest. Send your opinion to Editor, *The Journal*, Two Princess Road, Lawrenceville, NJ 08648.

^{**}Dr. Kovacs is President-Elect of the Medical Society of New Jersey

DOCTORS' NOTEBOOK

Trustees' Minutes May 17, 1982

A reorganization meeting of the Board of Trustees was held on May 17, 1982, at Resorts International Hotel, Atlantic City. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows.

Reorganization . . .

(1) Introduction of New Members . . . Welcomed officially the newly elected

Welcomed officially the newly elected members of the Board of Trustees: Frank Gingerelli, M.D., of the Second District; Harry M. Carnes, M.D., and Edwin Messey, M.D., of the Fourth District; Paul J. Hirsch, M.D., Treasurer; Ralph J. Fioretti, M.D., Second Vice-President; Frank Y. Watson, M.D., First Vice-President; and Alexander D. Kovacs, M.D., President-Elect.

(2) Election of the Chairman . . . Elected unanimously Palma E. Formica, M.D., as Chairman of the Board of Trustees, 1982-1983.

Old Business . . .

Attendance at the Annual Meeting Reported a total of 917 physicians at the 1982 Annual Meeting—only 55 more than at the 1981 Annual Meeting; there was a total attendance of 1,547—only 55 more than last year. Noted that although 412 Delegates, Fellows, and Officers are permitted to sit in the 1982 House, the greatest number was 303 in attendance.

New Business . . .

(1) Referrals from 1982 House of Delegates...

(a) AMA Dues for Retired or Semiretired Physicians—Resolution #4 ... Adopted as amended by Reference Committee "A" and referred to the AMA Delegation:

Resolved, that when a member of the AMA in good standing for 20 or more years retires or semiretires, his dues shall be reduced to one-half of his active membership dues, or to

the level of the dues of a resident-member of the AMA; and be it further

Resolved, that semiretirement shall be defined as working 20 or less hours per week and/or earning less than \$20,000 per year; and be it further

Resolved, that the above resolution be presented to the AMA House of Delegates.

(b) Schedule II Drug Prescription Program—Resolution #6 ... Adopted and referred to the Ad Hoc Committee on Drug and Alcohol Abuse for study and report:

Resolved, that the Board of Trustees appoint a panel to investigate the potential advantages and disadvantages of a program, including its cost, under which members of the Medical Society of New Jersey are evaluated by the state or county medical society while nonmembers deal directly with the State Board of Medical Examiners.

(c) Requiring All County Medical Societies To Include in Their Annual Billing Membership for JEMPAC—Resolution #17—Adopted and directed that the county medical societies be notified of the adoption by the House of Delegates and that a model bill form be included to assist the counties in complying with the required JEMPAC billing:

Resolved, that county medical societies include in their annual billing membership for JEMPAC. Contributions would be part of the entire county society annual billing sheet with JEMPAC membership requiring a separate personal check. County medical societies would forward contributions to the JEMPAC office for acknowledgement and bookkeeping.

(d) Council on Medical Services—Recommendation... Approved and referred to the Executive Committee for appropriate action:

That the Medical Society of New Jersey advocate and support necessary changes in Blue Cross, Blue Shield, and Major Medical contracts to make possible adequate coverage for rehabilitation treatment of patients requiring such services.

That the present, unrealistic \$50-a-year limit for rehabilitation treatment be changed so that rehabilitation treatment may be received on an outpatient basis whenever feasible and indicated, thereby avoiding expensive and extended hospitalization.

(e) Program To Publish a Periodical for Members of Hospital Governing Boards—Resolution #9 . . . Adopted and referred to the Committee on Publication for implementation:

Resolved, that the Medical Society of New Jersey undertake a program to publish, on a regular basis, a periodical for members of hospital governing boards in New Jersey to acquaint such persons with the views of organized medican related to the delivery of medical services and health care in New Jersey.

(f) Discontinuance of Federal Funding of Ambulatory Care Centers—Substitute Resolution #24E . . . Adopted the first resolved and referred to the Council on Medical Services for preparation of a white paper on the issue as the initial step in fulfilling the intent of the resolution; and referred the second resolved to the AMA Delegation:

Resolved, that the Medical Society of New Jersey pursue a policy to halt the unfair advantage given to hospitals in the form of government funding of hospital-affiliated ambulatory health care centers that are not involved directly in family practice residency teaching programs; and be it further

Resolved, that the Medical Society of New Jersey enlist the aid of the American Medical Association to halt any unfair competition that infringes on the private practice of medicine.

(g) Family Practice Centers—Substitute Resolution #25E . . . Adopted and referred to the Council on Medical Services for consideration in conjunction with Resolution #24E:

Resolved, that the model family practice center of an approved family practice residency training program specifically be distinguished by the Medical Society of New Jersey from other areas of ambulatory health care delivery; and be it further

Resolved, that the Medical Society of New Jersey continue its strong support of approved family practice residency training programs as they function within the general accreditation and special requirements of the Accreditation Council for Graduate Medical Education, and that these training programs should have the support of the appropriate county medical society.

(h) Request to Investigate Future Physi-

cian Supply in New Jersey—Resolution #1...Adopted as amended and referred to the Committee on Medical Education:

Resolved, that the Medical Society of New Jersey investigate the future physician supply and future requirements in New Jersey so that the Medical Society of New Jersey's membership and the public might be informed properly.

(i) Nuclear Arms Control—Resolution #7 ... Adopted and referred to the attention of President Reagan and the news media:

Resolved, that the Medical Society of New Jersey considers a freeze on the development and deployment of nuclear arms more likely to cause war than prevent it and counterproductive to the interests of the free world; and be it further

Resolved, that the Medical Society of New Jersey supports reduction in nuclear arms through the Strategic Arms Reduction Talks.

- (2) New Jersey State Medical Underwriters, Inc. . . .
- (a) Report on Activities . . . Informed by James S. Todd, M.D., that the Underwriter is embarking on a much more aggressive risk prevention program as well as legislative efforts in conjunction with the Medical Society of New Jersey with regard to the basic professional liability problem.
- (b) Appointments to the Board of Directors . . . Noted that under the constitution and bylaws of the Underwriter, the President of the Medical Society of New Jersey or his designee is appointed to serve on the Board of Directors of the Underwriter; Howard D. Slobodien, M.D., announced he will serve in that position. Noted the Executive Committee of the Medical Society of New Jersey recommended the nomination of Henry J. Mineur, M.D., to fill the vacancy created on the Board of Directors by the resignation of James E. George, M.D., J.D., and Doctor Mineur was appointed to serve a three-year term on the Board of Directors.
- (3) Restriction of Out-of-State Referrals by New Jersey Medical Assistance Program (Medicaid) . . . Referred the following resolution to the Committee on Medicaid for consideration and report:

Whereas, the New Jersey Medical Assistance Program no longer will reimburse non-New Jersey physicians for consultations on any medical care provided to patients covered by the New Jersey Medical Assistance Program (Medicaid); and

Whereas, this will prevent such patients from receiving optimal medical care when it may not be available within New Jersey; and

Whereas, this is a discriminatory policy affecting the financially poor patients of New Jersey; and

Whereas, this policy violates the right of the physician and his patient to decide where the patient may receive the best medical care, and restricts physician referral patterns; and

Whereas, this decision by the New Jersey Medical Assistance Program already has caused the closing of satellite clinics located within New Jersey but sponsored by out-of-state hospitals and staffed by out-of-state physicians; now therefore be it

Resolved, that the Medical Society of New Jersey pursue every effort to cause the New Jersey Medical Assistance Program to withdraw its policy of not reimbursing out-of-state physicians who provide medical services to New Jersey residents who are covered by the Assistance Program.

UMDNJ Notes

Stanley S. Bergen, Jr., M.D. President

Each year, the companion piece to my report on commencement is a column on the matching program, the primary avenue linking medical school graduates, nationally, with a postgraduate residency. The results of this year's program are gratifying in a number of ways.

To begin with, the statistical pattern shows that half of our graduating physicians—a much higher percentage than in our earlier years—are choosing New Jersey hospitals for their residency training. Tradition tells us that physicians often open practices in the region where their residency took place, so that bodes well for increased medical manpower for New Jersey and fulfills a major mission of the University.

Moreover, a high percentage of those remaining in the state chose major university affiliates. This includes 55 UMDNJ-New Jersey Medical School graduates selecting our College Hospital, Newark, and 30 graduates of UMDNJ-Rutgers Medical School selecting Middlesex General Hospital, the core affiliates, and the other hospitals in the Piscataway-based school's teaching program.

New Jersey also received a medical lift from our Fifth Pathway program, the year-long effort in clinical education that qualifies American graduates of foreign medical schools for United States hospital residencies. Of the 94 students completing the Fifth Pathway program (sometimes called Fifth Channel), 55 students are training in the state's hospitals; 12 of those students are training at core affiliates of UMDNJ.

Topping off our list of new New Jersey physicians are those D.O. (doctor of osteopathy) degree recipients from UMDNJ-New Jersey School of Osteopathic Medicine, Camden. Of the 28, recipients in the school's second graduating class, 8 graduates have entered residency training at the school's core teaching affiliate, John F. Kennedy Memorial Medical Center, Stratford (that includes two other South Jersey hospitals in the region), with other students placing at Philadelphia-area hospitals and elsewhere.

While it is extremely important that New Jersey strongly benefits from our efforts, the matching results also reflect some interesting data from a national standpoint—data that point to a strengthening reputation for our schools. For instance, a high percentage of graduates matched with their first choice hospital and most matched by the third choice, which shows that our students are being placed high up on the hospitals' priority lists.

At UMDNJ-New Jersey Medical School, 81 of 141 graduates received their first choice and 112 graduates were matched by the third choice. Of the 96 students in the UMDNJ-Rutgers Medical School match, 45 students received their first choice and 72 students—a full 75 percent of the class—matched with one of their top three choices.

Where they are matching out-of-state is another indicator of a growing reputation, and our students now are working at many of the nation's most prestigious medical centers. In New York, our students are at Long Island Jewish, Bellevue, Montefiore, and Kings County of the State University of New York; they are at Yale University Medical Center, and affiliates of the University of Connecticut and the University of Michigan, and in numerous other states.

There are a number of reasons for us to feel pleased and gratified about this year's matching results. This year was our first as a university; this year demonstrated a developing stature that goes beyond just a change of name—a situation that we all can take pride in.

Finally, if you are curious about the popularity of the various specialties among the Class of 1982, I give you the following breakdown (from UMDNJ-New Jersey Medical School and UMDNJ-Rutgers Medical School): medicine (traditionally the most popular), 101; surgery, 29; pediatrics, 26;

family practice, 26; obstetrics-gynecology, 16; flexible, 10; psychiatry, 9; orthopedies, 5; urology, 2; medical/pediatrics, 2; radiology, 2; pathology, 2; neurology, 1; ear-nose-throat, 1; and anesthesiology, 1.

MSNJ Auxiliary

Linda B. Hirsch

Eight delegates from our State Auxiliary attended the AMA Auxiliary Convention in Chicago.

Workshops were held to present the program for 1982-1983. At the workshop on legislation, we were briefed by Carla Neuschel, an AMA lobbyist in Washington, on the Legislative Alert regarding the bills calling for Federal Trade Commission reform. Auxiliaries in New Jersey were requested to send letters to the cosponsors of bills S. 2499 and H.R. 3722 thanking them for support and to write to the other congresspeople in our districts urging them to support the bills.

Workshops on membership and AMA-ERF were informative.

The keynote address at the 59th Annual Session of the AMA Auxiliary House of Delegates was given by the Honorable Lynn M. Martin, Congresswoman, 16th District, Illinois. Congresswoman Martin's talk was thought-provoking and stimulating, resulting in lively conversation among the delegates as we waited in the receiving line to honor Mrs. Isobel Dvorsky, outgoing President, and Mrs. Betty Payne, incoming President.

The second day of the convention began at 7:30 A.M. with reference committee hearings on finance and health issues, followed by an open hearing on bylaw revisions. The House voted to adopt resolutions to support spouses and families of impaired physicians; to support programs to help prevent child abuse; to support parental involvement in marijuana use among youth; and to enforce drunk driving laws. The AMA Auxiliary bylaws were revised by the House during a lively but well-conducted meeting.

The national convention concluded with the installation of Betty Payne as AMA Auxiliary President and William Y. Rial, M.D., as President of the AMA.

It was an invigorating and exhausting experience—filled with information, inspiration, and enjoyment.

Blood Banking*

Prior to 1963, there was no governmental control over blood banking in New Jersey except for those blood banks licensed by the National Institute of Health in interstate commerce. It was in the early 1960s that the activities of a commercial blood bank in northern New Jersey led to an investigation by the federal government that resulted in the closing of the facility and criminal penalties for the principals (fines and jail). As a result, the New Jersey Blood Bank Commission, which had been established earlier, was asked to study blood banking. In May, 1963, the Senate and General Assembly of New Jersey enacted what commonly is known as the New Jersey Blood Bank Licensing Act. The standards of operation for blood banks were established by rules and regulations adopted and promulgated by the Public Health Council of the Health Department. The regulations included: (1) qualifications of personnel; (2) restriction upon the use of blood donors; (3) standards for collection, processing, storage, and distribution; and (4) evaluation of performance.

In July, 1963, the first version of the Sanitary Code, Chapter X went into effect and the licensing of the state's blood banks began.

From 1964 to 1968, the Health Department conducted an intense inspection and proficiency testing program. It became apparent that changes in the Sanitary Code would be necessary to further improve the quality of blood banking in our state. Proposed changes began to be formulated from 1965 through 1968 with formal changes and additions presented to the Public Health Council in November, 1969. This second version of the Sanitary Code became effective in February, 1970.

It was about this time the state became involved in hepatitis research with the federal government. New Jersey was chosen primarily because it had a strong licensing program and would be able to obtain the cooperation of the state's blood banks in providing the necessary samples for testing. The size of our state and the cooperation of our citizens made posttransfusion followup feasible and successful. The results of these studies were incorporated into the 1971 revision of the regulations.

In 1974, the fourth version of the Code was put into effect based in large part on the need to keep abreast of the changes in blood banking and to coordi-

nate the state's regulation with those of the United States Public Health Service (now FDA) and the American Association of Blood Banks.

In 1975, after investigations by the Department into the sale and distribution of salvage plasma, it was required that plasma brokers obtain a limited blood bank license and maintain records to assure that this material was used only in the manufacture of *in vitro* diagnostic reagents and controls.

In the spring, 1979, the state's Blood Bank Committee was convened to discuss and recommend to the Public Health Council yet another set of revisions. The Public Health Council approved changes which became effective in June, 1979.

What effect has the application of these regulations had on blood banking in New Jersey?

In the beginning, through our Proficiency Testing Program, we were able to determine the level of technical competency of blood bank personnel in daily basic procedures and improve the quality to very high levels in just a few short years. By requiring better methods of recordkeeping, we are able to trace a unit of blood from source to final disposition. This is important in tracing hepatitis.

The requirement to provide statistical data regarding blood and blood component usage on an annual basis has made it possible for New Jersey to provide one of the most comprehensive and informative reports on this subject. Through this annual report we have seen blood wastage in hospitals drop from 9 percent in 1963 to 1.4 percent in 1981. We have seen New Jersey change from an importer to an exporter of blood; and, in 1981, no blood from paid donors was used in New Jersey.

State regulations will continue to be revised as needed in an effort to keep abreast of the latest developments in blood banking, but it must be remembered that all the improvements made in blood banking are not the result of law and regulations alone. Without the cooperation of the American Association of Blood Banks, the American Red Cross, the state's blood banks, and the blood bankers of our state, New Jersey would not be able to boast and be proud of what we accomplished.

^{*}Presented on March 30, 1982, to the New Jersey Blood Services/American Red Cross by Frederico Colosimo, Acting Director, Clinical Laboratory Improvement Program, New Jersey State Department of Health, Trenton.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Offices of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

- ANESTHESIOLOGY—S.K. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Partnership or group. Available.
- CARDIOLOGY—Mohammad Riaz, M.D., 853 Avenue Z, Brooklyn, NY 11235. Khyber (Pakistan) 1971. Board eligible. Group or partnership. Available.

Narendra T. Agrawal, M.D., 502-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Also, general internal medicine. Board eligible. Associate, partner, hospital-based clinic. Available.

Madhusudhan T. Gupta, M.D., 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Also, general internal medicine. Board certified (IM). Solo, group, partnership.

- FAMILY MEDICINE—Asha Garg, M.D., 133 Kearny Ave., Apt. 17, Kearny, NJ 07032. NHLM Medical College (India) 1970. Residency. Available.
 - Deborah A. Beiter, M.D., 44 Waterford Way, Fairport, NY 14450, SUNY-Upstate 1976. Board certified. Group or partnership, Available August 1982.

Railton Leonard Green, M.D., 64 Martin Drive, Harrington Park, NJ 07640. University of Cape Town (South Africa) 1959. Partnership or group. Available.

Michael A. Kazakoff, M.D., 4216 Wilson Avenue, Montreal, Quebec, Canada H4A 2T9. McGill 1974. Board certified. Any type practice. Available.

Jeffrey P. Tannenbaum, M.D., 3 Brookhill Drive, Schenectady, NY 12309. Boston 1977. Board certified. Group or partnership. Available.

GASTROENTEROLOGY—Mathew K. Kandathil, M.D., 94 Village Lane, Branford, CT 06405. Grant (India) 1974. Also, general internal medicine. Board certified (IM). Group, partnership, associate. Available.

Muhammad A. Nyazee, M.D., 1650 Selwyn Avenue, Bronx, NY 10457. Also, general internal medicine. Board certified (IM). Solo/group practice, partnership, academic (gastroenterology). Available.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available.

GENERAL PRACTICE—Samuel Saland, M.D., 125-F Galaxy, 7000 Boulevard East, Guttenberg, NJ 07093. Berne (Switzerland) 1934. Board certified (FP). Subspecialty, alcoholism (detoxification, treatment, rehabilitation). Full or part-time, multispecialty group, associate, preferably in vicinity of Fort Lee or Guttenberg area. Available.

INTERNAL MEDICINE—Arthur C. Tutela, M.D., 132 Midland Place, Newark, NJ 07106. Bologna (Italy) 1974. Also, general medicine. Group, partnership, clinic, institution. Available.

Muhammad A. Nyazee, M.D., 1650 Selwyn Ave., Bronx, NY 10457. Nishtar (Pakistan) 1974. Subspecialty, gastroenterology. Board certified. Solo/group practice, partnership, academic (gastroenterology). Available.

Thomas A. Neef, M.D., P.O. Box 3249, York, PA 17402. Georgetown 1975. Board eligible. Solo, associate, group. Available. Harry N. Brandeis, M.D., Ten Overlook Rd., Apt. 51, Summit, NJ 07901. Bologna (Italy) 1979. Board eligible. Group, partnership, solo. Available.

Narendra T. Agrawal, M.D., 503-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Subspecialty, cardiology. Board eligible. Associate, partner, hospitalbased clinic. Available.

Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Subspecialty, pulmonary medicine. Group or solo (hospital based). Available.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available.

Steven Fischkoff, M.D., 6792 Pyramid Way, Columbia, MD 21044. Pennsylvania 1976. Subspecialty, oncology. Board certified (both). Group or partnership. Available.

Frank Gentile, M.D., 2116 Trail 2, Apt. 9-K, Burlington, NC 27215. Bologna (Italy) 1973. Subspecialty, hematology and oncology. Solo or partnership. Available.

S. Srinivas, M.D., 7859 Riverdale Rd., Apt. 103, New Carrollton, MD 20784. Gandhi (India) 1973. Subspecialty, gastroenterology. Board certified. Solo, partnership, single-specialty group. Available.

Madhusudhan T. Gupta, M.D. 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Subspecialty, cardiology. Board certified. Solo, group, partnership. Available.

Nanjappa Ravi, M.D., Prel Gardens, Apt. 1D, Orangeburg, NY 10962. India 1970. Board eligible. Solo, group, partnership, emergency room. Available.

Vinod Kanbilal Shah, 507 6th St., Brooklyn, NY 11215. MP Shah (India) 1975. Board eligible. Group, solo, partnership. Available.

Jae O. Park, M.D., 9542 W. Pickwick, Taylor, MI 48180. Chonnam (Korea) 1969. Board eligible. Hospital based or group.

Curtis A. Wushensky, M.D., 3437 Fifth

Ave., Apt. 506, Pittsburgh, PA 15213. University of Pittsburgh 1979. Board eligible. Salaried, hospital, locum tenes, emergency room. Available.

Ellis R. Levin, M.D., 223 Pacific St., Apt. D, Santa Monica, CA 90405. Jefferson 1975. Subspecialty, endocrinology. Board certified. Group, associate, partnership. Available September 1982.

OBSTETRICS/GYNECOLOGY—Yvonne S. Thornton, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/fetal medicine. Board certified (both). Partnership or group (single specialty), Morris or Middlesex counties preferred. Available August 1982.

Ibrahim Beruti, M.D., 1236 Napoleon St., Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified. Solo. Available.

Gary S. Rosenberg, M.D., 245-20 Graud Central Parkway, Bellerose, NY 11426. SUNY-Downstate 1977. Board eligible. Group or partnership. Available.

OPHTHALMOLOGY—Shearwood J. Mc-Clelland, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia Physicians and Surgeons 1974. Board certified. Partnership or group. Available January 1983.

Michael Hostovsky, M.D., 4100 West 36th St., Minneapolis, MN 55416. Hadassah (Israel) 1972. Also, neuro-ophthalmology. Board eligible. Single or multispecialty group. Available September 1982.

Jasvinder Singh, M.D., 500 Central Ave., Apt. 702, Union City, NJ 07087. Lady Hardinge (India) 1970. Board eligible. Partnership, group, HMO. Available.

- OTOLARYNGOLOGY—Arnold I. Charow, M.D., 6 Country Club Drive, Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.)
- PATHOLOGY—S.A. Hadi, M.D., 50 S. Chillicothe St., South Charleston, OH 45368. Gandhi Medical (India) 1964. Board certified (Anatomic). Group. Available.
- PEDIATRICS—B. R. Prasad Achanti, M.D., #310, 11135-83 Ave., Edmonton, Alberta, Canada 6G-2C6. Guntur Medical (India) 1975. Board eligible. Available.

Jogesh Dugal, M.D., 135-17 Coolidge Ave., Kew Gardens, NY 11435. Lady Hardinge (India) 1970. Special interest, child development. Board eligible. Group or partnership. Available August 1982.

Suraiya I. Alvi, M.D., 1234A Birch St., Fort Dix, NJ 08640. Hyderabad (India) 1960. Board eligible. Group, partnership, multispecialty group. Available August 1982

Allan Gideon Plaut, M.D., 265-02 74th Ave., Glen Oaks, NY 11004. SUNY-Downstate 1977. Board eligible. Multispecialty group, partnership, prepaid health plan. Available.

PULMONARY DISEASES—Manoj Prakash, M.D., 16 Old Salem Court,

Cherry Hill, NJ 08034. GSMC (India) 1976. Also, general internal medicine. Group or solo, hospital based. Available.

Melvin Polkow, M.D. 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Also general internal medicine. Board certified (IM). Group, partnership, hospital based. Available.

K.J. Shah, M.D., 44-36 Kicham St., Elmhurst, NY 11373. G.S. Medical (India) 1976. Also, general internal medicine. Board certified (IM). Group or solo (hospital based). Available.

RADIOLOGY-Stephen Phillip Laufgraben, M.D., 19 Poplar Ave., Wheeling, WV 26003. University of Arkansas (1973) Board certified. Single-specialty group, hospital based, private. Available.

SURGERY, GENERAL-Robert C. Kahn, M.D., 2516 North 4th St., Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available.

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Mílan (Italy) 1972. Also colon and rectal surgery. Group or partnership. Available.

Alan Berger, M.D., 10 Landing Lane, Apt. 1P, New Brunswick, NJ 08901. Temple 1976. Also, vascular surgery. Board eligible. Group or partnership. Available.

SURGERY, PLASTIC-Parvaiz A. Malik, M.D., 5088 Clayridge Dr., Apt. 214, St. Louis, MO 63129. Dow (Pakistan) 1972. Solo, group, partnership. Available.

Gerald Siemsen, M.D., 3325 East English, Apt. 204, Wichita, KS 67218. Kansas 1957. Board certified. Industrial medicine, research, pharmaceutical or insurance company, institutional medicine. Available.

SURGERY, VASCULAR—Ahmed 1. Khan, M.D., 5627 North 16th St., Apt. H-8, Phoenix, AZ 85016. Dacca (Bangladesh) 1972. Also, general surgery. Any type practice. Available.

Alan Berger, M.D., 10 Landing Lane, Apt. 1P, New Brunswick, NJ 08901. Temple 1976. Board eligible. Group or partnership.

UROLOGY-Alexander M. Pagnani, M.D., 3510 Avenue H, Apt. 2-B, Brooklyn, NY 11210. Guadalajara (Mexico) 1976. Board eligible. Any type practice. Available.

Ramesh K. Chopra, M.D., 1920 S. First St., Minneapolis, MN 55454. Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available August 1982.

Frederick Greenstein, M.D., 732 E. 91st St., Brooklyn, NY 11236. SUNY-Downstate 1972. Board eligible. Group, partnership, academic, solo. Available.

Tung-Hua Chieng, M.D., 190 Mineola Blvd., Apt. 4-N, Mineola, NY 11501. Taiwan 1973. Board eligible. Group, partnership, solo. Available.

H.S. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Group, partnership, solo. Available.

Tiido Kallas, M.D., 714 Parsons Rd., Ridgewood, NJ 07450. NY Medical 1965. Board eligible. Group or partnership. Available.

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LETTER TO THE EDITOR

Competition: The Democratic Way

May 20, 1982

Dear Dr. Krosnick:

I should like to respond to Dr. Primich's opinion published in the May, 1982, issue of *The Journal*. I, too, am a militant solo practitioner. I have been practicing psychiatry in the Camden area for 29 years. I fear that Dr. Primich has "thrown out the baby with the bath water" in his enthusiasm, which I share, for private practice.

Competition is all around us, and it is the democratic way. I must compete not only with social workers, psychologists, and marriage counselors, but also with local chiropractors and "readers and advisors." Government support for some of our competitors (in my case, the local Community Mental Health Center) manifestly is unfair. Of course, so is the graduated income tax. Both, I believe, can be justified in terms of the overall good of our society. The question is not whether government should attempt to change the medical marketplace, but how. The cost of medical care clearly is escalating beyond reasonable bounds, particularly hospital care. HMOs unquestionably seem to be an effective way of reducing hospital costs and their proper encouragement seems in the public interest. I agree with Dr. Primich that in most cases the savings are effected via a lower quality of care. However, our country must face the need for the triage of patient care. Evervone cannot receive Rolls Royce care. Our national resources are insufficient. HMOs are a way of rationing care that some people may choose. Others may choose their own private physician: the Rolls Royce care.

Government regulations via the State Board of Medical Examiners, via the FDA, or via some other bureau, undoubtedly have many flaws, some of which we all have tangled with and sworn at. However, it is clear that none but the ultraconservative would jump from these flaws to conclude that there should be no State Board of Medical Examiners, FDA, or JCAH. In many ways, physicians are a public utility, educated to a large extent by public money (tuition rarely covers the full expense), and granted a partial monopoly to prescribe and operate by law. For this privilege, we must expect to suffer some regulations; some good, many bad.

Democracy is far from a perfect system. The answer is to work as best we can within the system to make it better. I expect to make a comfortable living by striving to give better, more ethical, more courteous, and more skillful service than my competitors.

(signed) George A. Rogers, M.D.

PERSONAL ITEMS

Dr. Allan J. Scher Selected for Fellowship

Allan J. Scher, M.D., Morristown, has been selected for Fellowship in the American College of Radiology (ACR) in honor of his special contributions to the medical profession.

The ACR is the professional medical society representing 18,000 physicians who specialize in the use of radiation and ultrasound to diagnose and treat human disease.

Dr. Scher, a native of Brooklyn, NY, is a graduate of Albert Einstein College of Medicine, New York. He is affiliated with Morristown Memorial Hospital, Saint Clare's Hospital, Denville, New-

ton Memorial Hospital, Hackettstown Community Hospital, and Wallkill Valley Hospital, Sussex. Dr. Scher is a member of our Morris County component and of the American Medical Society; he is a Diplomate of the American Board of Radiology and a Fellow of The Academy of Medicine of New Jersey.

Dr. Starr Elected President of Warren Hospital Staff

Cynthia D. Starr, M.D., has been elected President of the medical and dental staff of Warren Hospital, Phillipsburg.

A specialist in hematology and on-

cology, Dr. Starr joined the Warren Hospital staff in 1971, and, most recently, served as Vice-President of the medical and dental staff. She is a member of our Warren County component and of the American Medical Association.

Dr. Starr was graduated from Chicago Medical School in 1967 and served an internship and residency in internal medicine at Montefiore Hospital and Medical Center, New York, where she also completed a hematology residency and oncology fellowship.

Dr. Starr is the daughter of Benjamin Starr, M.D., an internist in family practice, on the staffs of Christ Hospital, Jersey City, and Palisades General Hospital, North Bergen.

ASTHMA 1980'S A CLINICAL SYMPOSIUM FOR THE PRIMARY CARE GIVER September 25-26, 1982

ASTHMA 1980's, A CLINICAL SYMPOSIUM FOR THE PRIMARY CARE GIVER: September 25-26, 1982, Hershey Lodge and Convention Center, Hershey, Pennsylvania; sponsors: St. Charles Hospital, Oregon, Ohio, in cooperation with the Milton S. Hershey Medical Center of the Pennsylvania State University, Hershey, Pennsylvania; 8 credit hours, category 1 of the AMA and 2D of the AOA; fee: \$120.00 if registered by August 10, 1982; \$135.00 after August 10, 1982; Physicians-in-Training \$80.00 if registered before August 10, 1982, or \$95.00 after August 10, 1982; contact ASTHMA 1980's, c/o John A. Winder, M.D., 5800 Monroe Street, Sylvania, Ohio 43560, or phone 419/885-5754.

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George Machiedo, M.D.
John Rombeau, M.D.

Contact: Murray H. Seltzer, M.D.
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Wednesday, October 20, 1982

MEDICAL SOCIETY OF NEW JERSEY
Executive Offices
Two Princess Road
Lawrenceville. New Jersey 08648

Morning Session 9:00 a.m.-12:00 p.m.

OPENING REMARKS

Howard D. Slobodien, M.D.

President, Medical Society of New Jersey

"A SURVEY OF PROFESSIONAL LIABILITY"

James E. George, M.D., J.D.

Director, Department of Professional Liability Control, Medical Society of New Jersey

"CLAIMS AND SUITS: WHAT'S HAPPENING"

Peter Sweetland, President

New Jersey State Medical Underwriters, Inc.

"PROFESSIONAL LIABILITY AND THE ROLE OF THE STATE BOARD OF MEDICAL

EXAMINERS OF NEW JERSEY"

Irving Plain, M.D.

Member State Board of Medical Examiners

Joan Gelber, Esq.

Deputy Attorney General

Lunch 12:00 p.m.-12:45 p.m.

Afternoon Session 12:45 p.m.-4:00 p.m.

"PROFESSIONAL LIABILITY AND THE ROLE OF THE NEW JERSEY DEPARTMENT OF INSURANCE"

Warren P. Cooper, Chief Actuary

Property/Liability, New Jersey Department of Insurance

"AN UPDATE OF RULE 4:21 PANEL HEARINGS"

Frances K. Boronski, Esq.

Chief, Civil Court Services Administrative Office of the Courts

"AN ALTERNATIVE: PROPOSED PROFESSIONAL LIABILITY LEGISLATION

Vincent A. Maressa, Executive Director

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ME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, The Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s), indicated by italics-last line of each item.

ANESTHESIOLOGY

Sept.

11 Advances in Pain Management

8 a.m.-5 p.m.-Resorts International Hotel, Atlantic City (UMDNJ-New Jersey Medical School)

CARDIOLOGY

Indications for Noninvasive Studies in Cardiology

12 noon-St. Mary's Hospital, Orange (AMNJ)

MEDICINE

Sept.

Chronic Diarrhea

9 a.m.-Freehold Area Hospital (AMNJ)

Burns

10:30 a.m.—St. Mary's Hospital, Passaic (AMNJ)

1 Medical Grand Rounds

11:30 a.m.-VA Medical Center, East Orange (Endocrinology Section of AMNJ)

Dinner Meeting

6-9:30 p.m.-Holiday Inn, East Orange (Endocrinology Section of AMNJ)

Renal Conferences in Nephrology 15 4-5 p.m.—UMDNJ-College Hospital,

- Newark (Nephrology Society of NJ and Nephrology Section of AMNJ)
- **Endocrine Conferences** 3:30-5:00 p.m.—Rotates between
- Newark Beth Israel, UMDNJ-College
- Hospital, United Hospitals, Newark, 22 29 and VA Medical Center, East Orange
- (Endocrinology Section of AMNJ) 2 Medical Grand Rounds

9:30 a.m.-Newark Beth Israel Medical

(Endocrinology Section of AMNJ)

3 Medical Grand Rounds

11:30 a.m.-UMDNJ-College Hospital, Newark (Endocrinology Section of AMNJ)

8 Sports Medicine

10:30 a.m.-12 noon-St. Mary's Hospital, Passaic (AMNJ)

21 The Insulin Pump 12 noon-St. Mary's Hospital, Orange (AMNJ)

Emergency Medicine

2 p.m.-Ancora Psychiatric Hospital, Hammonton (AMNJ)

1 Physical Fitness and Sports Medicine in

9 a.m.-4:30 p.m.-Meadowlands Sports Complex, East Rutherford (NJ State Council on Physical Fitness and AMNJI

1 Medical Grand Rounds

11:30 a.m.—UMDNJ-College Hospital, Newark (Endocrinology Section of AMNJ)

1 Immuno-Deficiency Diseases Especially Gamma Globulin Deficiency 12 noon-Freehold Area Hospital (AMNJ)

Rheumatology

11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

Physiological "Fine Tuning" of a Compromised Patient

7:30 a.m.-2 p.m.—Sheraton Hotel, Elizabeth (Elizabeth General Medical Center and AMNJ)

Immunology (Clinical) 10:30 a.m.-St. Mary's Hospital, Passaic (AMNJ)

6 Medical Grand Rounds 11:30 a.m.-VA Medical Center, East

Orange (Endocrinology Section of AMNJ)

Dinner Meeting 6-9:30 p.m.-Holiday Inn, East Orange (Endocrinology Section of AMNJ)

6 Renal Conferences in Nephrology

4-5 p.m.-UMDNJ-College Hospital, Newark (Nephrology Society of NJ and

- Nephrology Section of AMNJ) Classification and Clinical Manifestations of Vasculitis
- 20 Pericardial Disease
- Clinical Approach to Community- and Hospital-Acquired Pneumonias 9-11 a.m.-Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and
- AMNJ)**Endocrine Conferences**
- 13 3:30-5:00 p.m.-Rotates between
- 20 Newark Beth Israel, UMDNJ-College
 - Hospital, United Hospitals, Newark, and VA Medical Center, East Orange (Endocrinology Section of AMNJ)
 - Eye Development and Examination 9 a.m.-Freehold Area Hospital (AMNJ)
 - Medical Grand Rounds 9:30 a.m.-Newark Beth Israel Medical Center

(Endocrinology Section of AMNJ)

8 Complicated Hypertension

9 1-7 p.m.—Golden Nugget Hotel 7:30 a.m.-2 p.m.-Golden Nugget Hotel, Atlantic City (Alexian Brothers Hospital and AMNJ)

14 Antiarrhythmic Therapy

2 p.m.-John E. Runnells Hospital of Union County, Berkeley Heights (AMNJ)

Allergy

11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

Current Chemotherapy

10:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ)

NEUROLOGY/PSYCHIATRY

Sept.

- 2 Diagnosing Affective Disorders: Sleep Measurements
- Phenomenology, Psychopathology, and Diagnosis of Schizophrenia
- Management of Hypertension in 1982 12 noon-1 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)
 - Psychiatric Case Conference
- 14 7:30-9:30 a.m.—Trenton Psychiatric
- 21 Hospital
- 28 (Trenton Psychiatric Hospital and AMNJ)
- Antiarrhythmic Therapy 11 a.m.-Greystone Park Psychiatric (AMNJ)
- Anxiety: Clinical Causes and Treatment 9:30 a.m.-4:30 p.m.-Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)
- Radiology/Ultrasound 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)
- 23 Masochism and Trauma 8-11 p.m.—Hackensack Medical Center (NJ Psychoanalytic Society and AMNJ) The Chronically III: Dilemmas and New
- Psychiatric Approaches 8:30 a.m.-4:30 p.m.-Center for Health Affairs, Princeton
- 8:30 a.m.-4:30 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

Oct.

- 5 Psychiatric Case Conference
- 7:30-9:30 a.m.—Trenton Psychiatric 12
- Hospital
- 26 (Trenton Psychiatric Hospital and AMNJ)
 - **Drug-Induced Psychoses** 12 noon-1 p.m.—Carrier Foundation,

Belle Mead (Carrier Foundation and AMNJ)

Prevention of Mental Illness in Children: The Adolescent at Risk

"HUMAN SLEEP AND ITS DISORDERS: A CLINICAL APPROACH"

Sponsored by the Center for the Study of Sleep

Department of Psychiatry and Human Behavior, Jefferson Medical College

Thomas Jefferson University Hospital Thompson Annex Conference Room Philadelphia, PA 19107

Wednesday, September 15, 1982

Faculty

- William Dement, M.D., Ph.D.—Director, Sleep Disorders Center, Stanford University Medical Center. Stanford University School of Medicine. Stanford, California.
- Charles Pollak, M.D.,—Head, Sleep-Wake Disorders Center, New York Hospital, Cornell Medical Center.

 Calvin Stafford, M.D.—Director, Sleep Disorders Center, Department of Neurology. Crozer-Chester Medical Center. Chester, Pennsylvania.
- Mark Pressman, Ph.D.—Co-Director, Sleep Disorders Center, Department of Neurology. Medical College of Pennsylvania. Philadephia, Pennsylvania.
- Ralph Fishkin, D.O.—Director, Center for the Study of Sleep, Department of Psychiatry and Human Behavior, Jefferson Medical College. Philadelphia, Pennsylvania.
 G. Nino-Murcia, M.D.—Associate Director for Clinical Services, Center for the Study of Sleep, Department of Psychiatry and
- Human Behavior. Jefferson Medical College. Philadelphia, Pennsylvania.

A one day symposium that will focus on the evaluation, diagnosis and treatment of the most common disorders of sleep: narcolepsy, insomnia, sleep apnea, restless legs syndrome, nocturnal myoclonus, and disorders of the sleepwake cycle among others. Dr. Dement will also discuss sleep disorders in the elderly as well as developments in the frontiers of sleep research.

This symposium has been designed for general physicians, internists, family medicine specialists, otorhinolaringologists, neurologists, psy-chiatrists, psychologists and other professionals involved in the treatment of patients with sleep disorders.

REGISTRATION FORM

Registration Fee: \$50.00

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8:30 a.m.-4:30 p.m.-Mountainside Hospital, Montclair (Departments of Psychiatry, Pediatrics, and Family Practice, Mountainside Hos-

pital and AMNJ) Genetics and Psychiatry

2 p.m.-Ancora Psychiatric Hospital, Hammonton (AMNJ)

Interventions in Clinical Psychiatric Nursing Care

- 9 a.m.-4 p.m.-Center for Health Affairs. Princeton
- 9 a.m.-4 p.m.-Carrier Foundation, Belle Mead (Carrier Foundation)

OBSTETRICS/GYNECOLOGY

Oct.

13 Diagnosis and Treatment of Gynecological Cancer

9-11 a.m.—Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and

AMNJ) PATHOLOGY

Sept.

- 23 Structural Basis of Organization in Cells 30 Nucleus and Nucleic Acids Cell-Cycle
 - Analysis 4-6 p.m.-Institute for Medical Research, Copewood St., Camden (Institute for Medical Research AMNJ)

Oct.

- Gene Expression
- 14 **DNA Repair Processes**
- Gene Mapping 21

Histones and Nuclear Structure 4-6 p.m.-Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJ)

New Developments for Your Clinical Microbiology Laboratory 9 a.m.-4 p.m.-St. Michael's Medical Center, Newark (St. Michael's Medical Center and AMNJ)

PEDIATRICS

Sept.

28 Juvenile Hypertension 8:30-10 a.m.—St. Joseph's Hospital, Pa-(St. Joseph's Hospital and Medical Cen-

Oct.

26 Biliary Atresia and the Cholestatic Syndromes in the Newborn

8:30-10 a.m.—St. Joseph's Hospital, Pa-(St. Joseph's Hospital and Medical Center and AMNJ)

RADIOLOGY

Sept.

16 Pediatric Anomalies

ter and AMNJ)

7:15 p.m.—St. Barnabas Medical Center, Livingston (NJ Institute for Ultrasound in Medicine, Radiological Society of NJ, and

Oct.

20 Dinner Meeting 6:30 p.m.—The Manor, West Orange (Radiotherapy Section, AMNJ)

Diagnostic Section of AMNJ)

Lecture Series 7:15 p.m.—St. Barnabas Medical Center, Livingston (Radiological Society of NJ and Diagnostic Radiology Section of AMNJ)

SURGERY

Sept.

Surgery Intensive Care/Monitoring Critically Ill Patient 7:45 a.m.—Freehold Area Hospital (AMNJ)

Oct.

3 Cardiovascular Medicine and Surgery 7:30 a.m.-5:45 p.m.-Meadowlands Hilton, Secaucus (UMDNJ and AMNJ)

MISCELLANEOUS

(AMNJ)

Oct.

6 Malpractice 11:30 a.m.—Columbus Hospital, Newark

Dr. Robert S. Andre

A member of our Gloucester County omponent, Robert S. Andre, M.D., ied on June 17, 1982. Born in 1924, Dr. Indre was graduated from Hahnemann Medical College, Philadelphia, in 1949. Dr. Andre was Chief, Neurology, at Jnderwood-Memorial Hospital, Woodoury. He was a Diplomate of the Amerian Board of Neurology, a member of he American Medical Association, and

a Fellow of the American College of Surgeons.

Dr. Herman Behrens

At the grand age of 89, Herman Behrens, M.D., of Jersey City, died on June 18, 1982. Dr. Behrens was a member of our Hudson County component and of the American Medical Association. He was graduated from Bellevue Hospital Medical College, New York, in 1919. A family practitioner, Dr. Behrens was affiliated with North Hudson Hospital, Weehawken, and Christ Hospital and Hague Hospital, both in Jersey City.

Dr. Joseph Doboy

Joseph Doboy, M.D., of Toms River, died of a stab wound on May 27, 1982. Born in 1916, Dr. Doboy was graduated from the Medical College of Virginia in 1949. He served as Director of Radiology at Community Memorial Hospital, Toms River, Associate Radiologist and Director of Nuclear Medicine at Episcopal Hospital, Philadelphia, and Professor of Radiology at UMDNJ-New Jersey Medical School. Dr. Doboy was a member of our Ocean County component and of the American Medical Association; he was a Diplomate of the American Board of Radiology.

Dr. John S. Dunn, Sr.

John S. Dunn, Sr., M.D., an emeritus member of our Salem County component, died on May 28, 1982. Born in Salem in 1903, Dr. Dunn earned a medical degree at Hahnemann Medical College, Philadelphia, in 1929. He served as a commander in the United States Navy from 1943 to 1946. Dr. Dunn was a member of the American Medical Association.

Dr. Alexander H. Fishkoff

On May 26, 1982, Alexander Harry Fishkoff, M.D., of Perth Amboy, died. Born in 1903 in Russia, Dr. Fishkoff was graduated from Albany Medical School, New York, in 1929. He maintained an eye, ear, nose, and throat practice in Perth Amboy and was affiliated with Perth Amboy General Hospital. Dr. Fishkoff was a member of our Middlesex County component and of the American Medical Association.

Dr. Robert R. Grimes

An emeritus member of our Bergen County component, Robert Raymond Grimes, M.D., died on April 23, 1982. Born in 1910, Dr. Grimes was graduated from New York Medical College in 1935. He maintained a family practice in Ridgefield until his retirement in 1972. During his career, Dr. Grimes was affiliated with Holy Name Hospital, Teaneck. Dr. Grimes was a captain in the Medical Corps during World War II.

Dr. William H. Hahn

William Horace Hahn, M.D., an emeritus member of our Essex County

component, died on June 3, 1982. Born in 1895, Dr. Hahn was graduated from Yale Medical School in 1926. Dr. Hahn served as President of the Medical Staff at Martland Medical Center, South Orange; Chief of Eye Service at Saint Barnabas Medical Center, Livingston; and Chief of Eye Service at Newark Eye and Ear Infirmary. Dr. Hahn was one of the founders of the Essex County Service for the Chronically Ill and of the Visiting Homemaker Service of Newark. He was a Past President of the Essex County Medical Society and of The Academy of Medicine of New Jersey, Dr. Hahn was a Diplomate of the American Board of Ophthalmology, a Fellow of the American College of Surgeons, and a member of the American Medical Association. Dr. Hahn was a recipient of MSNJ's Golden Merit Award in 1976 in recognition of 50 years of service as a physi-

Dr. Edgar A.P. Peters

Word has been received of the death of Edgar Allen Poe Peters, M.D., on April 17, 1982. Born in 1898, Dr. Peters was graduated from the University of Maryland Medical School in 1921. Dr. Peters was a surgeon in Jersey City for 50 years; he was affiliated with Greenville Hospital, Jersey City. Dr. Peters was an emeritus member of our Hudson County component; he was a member of The Academy of Medicine of New Jersey and of the American Medical Association. Dr. Peters was a Fellow of the International College of Surgeons and of the Society of Surgeons of New Jersey.

Dr. Milton M. Schisler

An emeritus member of our Burlington County component, Milton M. Schisler, M.D., died on June 1, 1982. Born in Trenton in 1901, Dr. Schisler was graduated from Jefferson Medical College in 1925. For over 50 years he was a family practitioner in Florence; in 1975, Dr. Schisler received MSNJ's Golden Merit Award. Dr. Schisler was a member of the American Medical Association.

Dr. Nancy S. Sibert

At the untimely age of 40, Nancy Spitznogle Sibert, M.D., died on June

14, 1982. Dr. Sibert earned a medical degree at West Virginia University in 1967: she completed her internship at Polyclinic Hospital, Harrisburg, PA. Dr. Sibert was a Diplomate of the American Board of Family Practice and a member of the American Medical Association and of our Gloucester County component. She was Director of the Family Medicine Program at Underwood-Memorial Hospital, Woodbury.

Dr. Nicholas Szuch

At the grand age of 98, Nicholas Szuch, M.D., of South River, died. Dr. Szuch was a member of our Middlesex County component and of the American Medical Association. Born in 1884 in Czechoslovakia, Dr. Szuch earned a medical degree at the University of Budapest in 1909. During his lengthy career, Dr. Szuch was affiliated with St. Peter's Medical Center, New Brunswick.

Dr. M. Edward Tell

M. Edward Tell, M.D., died on May 22, 1982. Born in Passaic in 1909, Dr. Tell was graduated from Georgetown Medical School in 1937. He practiced ear, nose, and throat medicine for 42 years in Passaic before retiring to Florida in 1979. Dr. Tell was affiliated with Passaic General Hospital and Chilton Memorial Hospital, Pompton Plains, and he was a member of the Academy of Medicine of New Jersey and was an emeritus member of our Passaic County component. During World War II, Dr. Tell was a lieutenant commander in the United States Navy.

Dr. Frank A. Vallario

Frank Anthony Vallario, M.D., of Glen Ridge, died on May 5, 1982. Born in 1910 in Italy, he earned a medical degree at Hahnemann Medical College, Philadelphia, in 1937. A family practitioner, Dr. Vallario was a member of the American Medical Association and of the Academy of Medicine of New Jersey; he was a member of our Essex County component. Dr. Vallario was affiliated with Clara Maass Memorial Hospital, Belleville.

Diagnosis and Management of Diabetes Mellitus

O. Charles Olson, M.D., Philadelphia, PA, Lea & Febiger, 1982. Pp. 294. (\$28.50)

Diagnosis and Management of Diabetes Mellitus is a book that exceeds its stated purpose of furnishing a clinical manual for the medical student, resident, and primary care physician. It is an eminently readable and concise, but full, description of the present status of the treatment of diabetes mellitus. Tight control is emphasized as the goal, with the belief that this should minimize the complications of diabetes. The book is not intended as a tome for the diabetologist but by no means is it a simple compendium of treatment. There is an excellent discussion of diet, hypoglycemics, the insulins, and the comas (diabetic, ketoacidosis, lactic acidosis, hypoglycemis, nonketotic, hyperosmolar), with succinct explanations of the pathophysiology and of treatment in detail. An interesting and particularly useful device for the busy practitioner is the substitution of the citation of the most recent authoritative comprehensive review, of the particular subject discussed, at the end of most chapters instead of a long bibliography. This book, written by a practicing and practical diabetologist, has been a pleasure to review and to recommend to any physician who treats diabetes and needs a quick reference.

Samuel E. Einhorn, M.D.

Echocardiography: Techniques and Interpretation

Sonia Chang. Philadelphia, PA, Lea & Febiger, 1982. Pp. 362. (\$22.50)

The author presents the second edition of a fine text on echocardiography that has been the foundation of the education of countless cardiologists, fellows, and medical practitioners. Since the earliest works of Feigenbaum, the science of echocardiography has advanced to become a most important tool of noninvasive cardiology. New facts, figures, and studies appear in the literature from the laboratories and hospital wards in increasing numbers.

Sonia Chang collates, summarizes, and explains the old and new in the latest book using hundreds of illustrations in keeping with the idiom, "one picture is worth a thousand words." Her subsequent material starts with a normal heart, M-mode and two-dimensional, and progresses through enlargement, pericardial disease, left ventricular function, heart valves, arteries, and prosthetic valves. Chang includes numerous graphs and indices that clarify the physiology and pathology of the heart.

Probably one of the finest portions of this book is the extensive bibliography at the end of each chapter that is organized in subject headings. It is a fine reference guide

The book is an excellent text for cardiologists, fellows, residents, internists, and technicians. I am looking forward to the third edition which soon should follow considering the explosion of facts that are coming out of the echocardiography laboratories.

Manuel J. Rowen, M.D.

Practical Endocrine Diagnosis, Third Edition

Nelson Watts, M.D., and Joseph Keffer, M.D. Philadelphia, PA, Lea & Febiger, 1982. Pp. 166. (\$18.75)

Practical Endocrine Diagnosis, Third Edition brings to the primary physician and/or house staff member a step-bystep description of laboratory endocrine testing with adequate explanation in the text for diagnosis and management of patients with endocrine dysfunction. The authors admirably present this material in a concise and understandable fashion. Each chapter finishes with quoted references and the book concludes with an updated bibliography in an attempt to present the latest in endocrine comment in active fields of study.

Text errors that may generate confusion include: page 29—Evening cortisol value falls to one-third the morning value; page 41—Adrenal insufficiency may result in hyperkalemia; page 88—RAI uptake (not RIA); and page 88—Current sensitive determination of TSH elevation may not be as extremely rare in the untreated patient where T4 is above 5.0.

Tables were well selected.

This book should be received warmly for staff teaching of practical endocrinology, especially the statement: "Clinical presentation should be the primary decision-making factor regarding treatment—treat the patient, not the test result."

Mark M. Singer, M.D.

Science Reports, Adolescence and Stress

Report of a National Institute of Mental Health Conference. Washington, D.C., United States Government Printing Office, 1981. Pp. 150.

The usefulness of Science Reports, Adolescence and Stress lies in the presentation and discussion by research scientists of their empirical findings on the adolescent passage-a stressful transition point between childhood and adulthood. The conference participants pinpoint factors promoting healthy development, giving less attention to pathology and malfunctioning. Typical of these more normative studies of the individual is the use of resistant to mean resilient (not stubborn). A hardy personality style is defined by commitment, control (acting as if one can influence events), and challenge (change seen as normal and a needed stimulus to growth).

Turning to the family, where communication is clear and parents are not overinvolved, resentful, or highly critical, major pathology is absent. Personal criticism of the adolescent, resentment, overinvolvement by parents, and confusion over contradictions in communication lead to severe disturbance.

The report is broadly divided into individual development (personality, socioemotional, biological, and cognitive); major factors acting on the early adolescent (family, social relations, schools, environmental stresses); a roundtable discussion on current research and conceptualizations on stress responsivity; and growing up vulnerable and growing up resistant—two longitudinal studies.

Theoretical positions, individual formulations, and future research projections clearly are delineated. The research results are well summarized and worth reading by any physician interested in adolescents and their vicissitudes.

Leonard Hollander, M.D.

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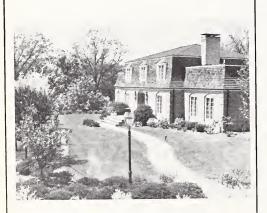
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Table of Contents Page 708 Send this coupon for no-obligation information of the savings under the Medical Society of New Jersey Endorsed Insurance Plans

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CONTENTS

715 PROFESSIONAL LIABILITY COMMENTARY

FDITORIALS

- 719 Morris H. Saffron, M.D.
- 720 Patient Health Education: Who Pays?

ARTICLES

- 723 Arterial Oxygen Saturation and Cardiac Rhythm During Transoral Fiberoptic Bronchoscopy P.L. Schilfman, M.D., R.E. Westlake, M.D., J.A. Fourre, E.T. Leonard, New Brunswick
- 731 Percutaneous Fine-Needle Biopsy Using Direct Imaging Techniques
 Kenneth L. Jewel, M.D., and Stephen Kimler, M.D., Montclair
- 735 Clinical Use of Recombinant DNA Techniques: The Antenatal Diagnosis of Sickle Cell Anemia J.R. Jones, M.D., V. Romano, Ph.D., M. Bernard, B.S., M. Shaw, F. Ramirez, Ph.D., Piscataway
- 741 Head and Neck Examination and Audiometric Screening in Institutionalized New Jersey Mental Patients J. Labagnara, Jr., M.D., E. Winarsky, M.D., K. Han, M.D., Newark

CASE REPORT

747 Ureteral Obstruction Complicating Urethropexy D.J. Kissinger, M.D., E.P. Beaugard, M.D., P.S. Affuso, M.D., Teaneck

THE ELECTROCARDIOGRAM

749 The Syndrome of the Long Q-T Interval Edwin L. Rothfeld, M.D., Newark

CLINICAL NOTE

755 The Subclavian Vein Cannula for Vascular Access F.W. Previti, M.D., J.R. Walch, M.D., W.B. Aarons, M.D., Atlantic City

MEDICAL HISTORY

- 758 New Jersey or Massachusetts? Morris H. Saffron, M.D., Newark
- 761 THERAPEUTIC DRUG INFORMATION
- 763 WHAT IS YOUR OPINION?

 Dirck L. Brendlinger, M.D., Marlton
- 765 1982-1983 COMMITTEES & COUNCILS

DOCTORS' NOTEBOOK

- 769 Trustees' Minutes: July 18, 1982
- 772 UMDNJ Notes
- 772 MSNJ Auxiliary
- 772 Emergency Medical Care
- 772 Federal Compensation for Medical Services
- 773 Medical Philately
- 773 Dr. Breen Elected to ACOG
- 773 Dr. Mousavi Honored
- 773 Dr. Barach Receives Fellowship
- 773 Physicians Seeking Location in New Jersey
- 776 LETTERS TO THE EDITOR
- 777 CME CALENDAR
- 781 OBITUARIES
- 783 BOOK REVIEWS



On The Cover: How many dermatologists can you think of who have a Ph.D. degree in history from Columbia University and have a collection of books on historical medicine named for him, and almost single-handedly formed the Medical History Society of New Jersey? There is only one such person—Morris H. Saffron, M.D., the first Archivist Historian of the Medical Society of New Jersey. Read the editorial on page 719. Cover illustration by Susan Cermele.

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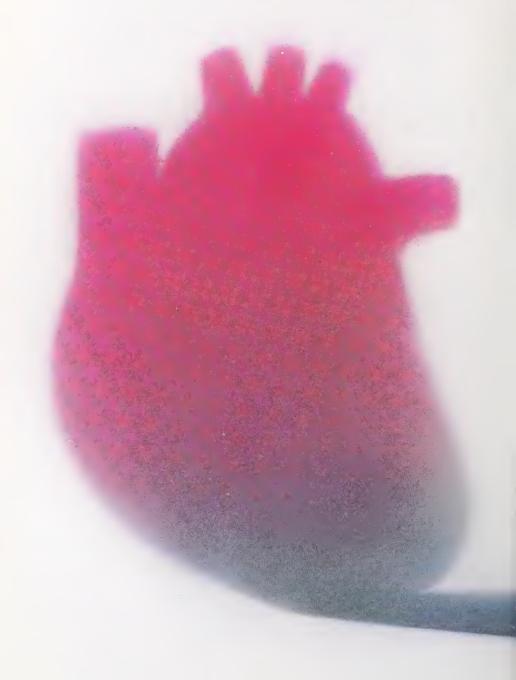


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reported in which, after propranolol, the tachycardia was replaced by a severe brady-cardia requiring a demand pacemaker. In one case this resulted after an initial dose of

IN PATIENTS UNDERGOING MAJOR SURGERY, beta-blockade impairs the ability of the IN PATIENTS UNDERGOING MAJOR SURGERY, beta-blockade impairs the ability of the heart to respond to reflex stimul. Except in pheochromocytoma, proprianoloi should be withdrawn 48 hours prior to surgery in case of emergency surgery, the effects of pro-prantoid can be reversed by administration of beta-receptor agonists such as isopro-terend or levarierend. but such patients may be subject to protracted severe hypotension. Difficulty in restaining and maintaining the heart beat has been reported. IN PATIENT'S PRONE TO MONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-CHITIS, EMPHYSEMA), administer with caustion, since proprianolol may block bronchodila-chitis.

tion produced by endogenous and exogenous catecholamine stimulation of beta-receptors

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- The appearance of these tablets is a trademark of Ayerst Laboratories Store at room temperature (approximately 25° C)
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Reference: 1 Freis, E.D. Hypertension (Suppl II) 3:230 (Nov.-Dec.) 1981



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The education content of each issue appears as scientific articles, based on research, original concepts relative to epidemiology of disease, and treatment methodology; case reports based on unusual clinical experiences; review articles; clinical notes, succinct items on some aspect or new observation or technique of a case experience; and special articles, which include evaluations, policy and position papers, and reviews of nonscientific subjects. Other topics include commentary (critical narration); medical history; therapeutic drug information; pediatric briefs; nutrition update, and an opinion column. Editorials are prepared by the Editor and by guest contributors on timely and relevant subjects; editorials are the responsibility of the author. The Doctors' Notebook section contains organizational, informational, and administrative items from the Medical Society and from the community. Letters to the Editor and book reviews are welcome and will be published as space permits. The principal aim in the preparation of contributions should be relevance to diagnosis and treatment and to education of patients and professionals. Preference will be given to professional authors from New Jersey and to out-of-state lecturers who submit a suitable manuscript based on a presentation made in New Jersey.

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Authors are asked to seek clarity, accuracy, and originality; attention to details of grammar, spelling, and typing are important.

The title page should include the full name, degrees, and

affiliations of all authors, and the name and address of the author to whom reprint requests should be sent.

The author should submit a 50-word **abstract** to be used at the beginning of the article.

Tables must be typewritten and double-spaced on separate 8-1/2 by 11" sheets, with a title and number. Symbols for units should be confined to column headings, and abbreviations, properly explained, should be kept to a minimum. Illustrations should be professional quality, black-and-white glossy prints. The name of the author, figure number, and the top of the figure should be noted on a label attached to the back of each illustration. Where photographs of patients are used, the subjects should not be identifiable or publication permission, signed by the subject or responsible person, must be included with the photograph. Material taken from other publications must give credit to the source; written permission for republication from the original publisher must be submitted. The cost of color photographs must be borne by the author.

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The summary of the article should not exceed 250 words; it should contain only essential facts.

References should not exceed 35 citations except in review articles, and should be cited consecutively in the text by numbers in parentheses at the end of the sentence. The reference list should be typewritten and double-spaced on separate 8-1/2 by 11" sheets in the numerical order in which they are first cited in the text. The style of reference is that of *Index Medicus*:

- 1. Goldwyn RM: Subcutaneous mastectomy. J Med Soc NJ 74:1050-1052, 1977.
- 2. Dixon WJ, Massey FJ: Introduction to Statistical Analysis. New York, NY, McGraw-Hill, 1969, Pp. 00-00.

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Wednesday, October 20, 1982

MEDICAL SOCIETY OF NEW JERSEY
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Morning Session 9:00 a.m.-12:00 p.m.

OPENING REMARKS

Howard D. Slobodien, M.D.

President, Medical Society of New Jersey

"A SURVEY OF PROFESSIONAL LIABILITY"

James E. George, M.D., J.D.

Director, Department of Professional Liability Control, Medical Society of New Jersey

"CLAIMS AND SUITS: WHAT'S HAPPENING"

Peter Sweetland, President

New Jersey State Medical Underwriters, Inc.

"PROFESSIONAL LIABILITY AND THE ROLE OF THE STATE BOARD OF MEDICAL EXAMINERS OF NEW JERSEY"

Irving Plain, M.D.

Member State Board of Medical Examiners

Joan Gelber, Esq.

Deputy Attorney General

Lunch 12:00 p.m.-12:45 p.m.

Afternoon Session 12:45 p.m.-4:00 p.m.

"PROFESSIONAL LIABILITY AND THE ROLE OF THE NEW JERSEY DEPARTMENT OF INSURANCE"

Warren P. Cooper, Chief Actuary

Property/Liability, New Jersey Department of Insurance

"AN UPDATE OF RULE 4:21 PANEL HEARINGS"

Frances K. Boronski, Esq.

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A Physician's Countersuit*

fter successfully defending a medical malpractice action, in the case of Friedman v. Dozoric, a Michigan physician sued the attorneys who had represented the plaintiff. The physician claimed negligence, abuse of process, and malice against the attorneys.

The May 10, 1982, issue of *Personal Injury Newsletter* reported the court's decision: "The court held that 1) the plaintiff failed to state an actionable claim in negligence because the attorney owed no duty of care to an adverse party in litigation; 2) the plaintiff failed to state an actionable claim for abuse of process because there was no allegation that the defendants committed an irregular act in the use of process; and 3) the plaintiff failed to state a cause of action for malicious prosecution because the complaint did not allege interference with his person or property sufficient to constitute special injury under Michigan law."

The newsletter further explained the rationale of the court in rendering its decision against the physician and for the attorney: "The court rejected plaintiff's argument that an attorney who initiates a civil action owed a duty to the client's adversary to conduct a reasonable investigation of the laws and facts sufficient to have an adequate basis for a goodfaith belief that the client has a tenable claim. The court reasoned creation of a duty in favor of an adversary of the attorney's client would create an unacceptable conflict of interest which would seriously hamper an attorney's effectiveness as counsel for his client. Not only would the adversary's interests interfere with the client's interests, the attorney's justifiable concern with being sued for negligence would detrimentally interfere with the attorney-client relationship.

"The court noted further [that] recognition of a cause of action in favor of a client's adversary might unduly inhibit attorneys from bringing close cases or advancing innovative theories, or taking action against defendants who can be expected to retaliate.

"In considering the plaintiff's claim for abuse of process, the court observed that the plaintiff must plead and prove: 1) ulterior purpose and 2) an act in the use of process which was improper in the regular prosecution of the proceeding. The court concluded [that they] need not decide whether plaintiff's pleadings sufficiently allege that the defendants had an ulterior purpose in causing process to issue, since it is clear that the plaintiff had failed to allege that defendants committed some irregular act in the use of process. The only act in the use of process that plaintiff alleges is the issuance of a summons and complaint in the former malpractice action. However, a summons and complaint are properly employed when used to institute a civil action, and thus plaintiff had failed to satisfy the second element.

"Reviewing Michigan case law, the court observed that to date, Michigan courts had followed the English rule that to recover for malicious prosecution, a plaintiff must demonstrate special injury in the nature of an interference with person or property. Further, after considering the various criticisms of the special injury requirement, the court concluded that the requirement should be retained. The court stated: 'Although this case arises upon the plaintiff doctor's assertions that the defendant attorneys wrongfully prosecuted a medical malpractice action against him, if we were to eliminate the special injury requirement, that expansion of the tort of malicious prosecution would not be limited to countersuits against attorneys by aggrieved physicians. An action for malicious prosecution from civil proceedings could be brought by any former defendant-person, firm or corporation, private or public-in whose favor prior civil suit terminated, against the former plaintiff or the plaintiff's attorney or both. In expanding the availability of such an action the court merely would not provide a remedy for those required to defend groundless medical malpractice actions, but would arm all prevailing defendants with an instrument of retaliation, whether the prior action sounded in tort, contract, or an altogether different area of law. The cure for an excess of litigation is not more litigation. Meritorious as well as frivolous claims are likely to be deterred. There are sure to be those who would use the courts and such an expanded tort remedy as a retaliatory or punitive device without regard to the likelihood of recovery or who would seek a means of recovering the actual costs of defending the first action without regard to whether it was truly vexatious."

"The court observed that apart from special injury, elements of a tort action for malicious prosecution were 1) prior proceedings terminated in favor of the present plaintiff; 2) absence of probable cause; and 3) malice. Although the court held that the absence of special injury warranted summary judgment in favor of the defendant, the court nevertheless discussed in general the conditions under which the attorney for an unsuccessful plaintiff could be held liable for malicious prosecution.

"Adopting the definition of probable cause set forth in Restatement (Second) of Torts, § 675, the Court wrote: 'As applied to a plaintiff's lawyer, this standard would allow lack of probable cause to be found where the lawyer proceeded with knowledge that the claim had no factual or legal basis, but would impose no obligation to investigate if the lawyer could reasonably believe the facts to be as the client alleged.'

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department, and Director of Special Projects.

"In discussing what was required to show malice on the part of an attorney, the court adopted Restatement (Second) of Torts, § 674, and distinguished between the layperson and an attorney. The court stated: 'The Restatement defines the mental element of the tort... as a purpose other than that of securing the proper adjudication of the claim in which the proceedings are based. A finding of an improper purpose on the part of the unsuccessful attorney must be supported by evidence independent of the evidence establishing that the action was brought without probable cause.'"

HEALTH RISK SEEN IN CHILDREN SEDATED FOR CAT SCANS

Youngsters sedated for CAT (computed axial tomography) scans have developed serious, and in some instances life-threatening, drug-induced reactions.

In a collaborative study of Boston-area pediatric patients, researchers at Harvard Medical School and Boston University School of Medicine found that 13 of 106 children who were sedated prior to a CAT scan of the head developed adverse reactions. The risk appeared greatest when multiple drugs and high doses were used, although the youngest infants reacted severely to normal doses of a single drug.

Allen A. Mitchell, M.D., Director of the Pediatric Drug Surveillance Program run by the two Boston schools, was principal investigator for the study which appeared in the May 7, 1982, issue of the *Journal of the American Medical Association*.

The CAT scan involves a low dose of radiation but, as the Boston study shows, drugs used to keep the young patients motionless during the 15 to 30 minute procedure caused a wide range of problems from vomiting to life-threatening respiratory arrest. Children with more severe reactions required treatment with another drug to reverse the effects of the narcotics. There were no fatalities, however, and no apparent long-term consequences.

The children who developed adverse reactions to the premedication ranged in age from two days to 15 years and received up to five drugs in combination. Life-threatening events occurred in only the four infants younger than three months. Two of these infants received only single injections of morphine.

"We're not suggesting that CAT scans be avoided," Mitchell said in a separate interview. He concluded, "The CAT scan is a noninvasive procedure that we've found invaluable in assessing problems like congenital malformations, brain tumors, and injuries to the head. It is more accurate and less traumatic than the older diagnostic technique it replaces. What's important is choosing the right drugs and dosages for sedating the youngsters before a scan and then watching carefully for signs of reaction both during the scan and afterward on the hospital ward."

DID YOU KNOW . . .

New York Appellate Court has ruled that a psychiatrist's wrongful disclosure of personal information to a plaintiff's wife learned during treatment is a breach of fiduciary duty of confidentiality? Disclosure of confidential information by a psychiatrist to a spouse will be justified whenever there is a danger to the plaintiff, the spouse, or another person; otherwise information should not be disclosed without authorization. Justification or excuse will depend upon a showing of circumstances and competing interests that sup-

port the need to disclose. *Personal Injury Newsletter*, May 24, 1982, Vol. 25 No. 24

Many patients care more about a doctor's personality than they do about his fees or how difficult it is to get an appointment with him? More than one-fourth of the patients surveyed in 28 cities by a researcher at St. Louis University Medical Center said the doctor's manner is the most important factor in choosing a physician; only a friend's recommendation placed higher. Not even such factors as distance from the doctor's office, hospital affiliation, type of practice, or the doctor's fees came close to the top two factors. *Medical Economics*, June 21, 1982

Kentucky Appellate Court in a wrongful birth case has ruled that a physician is not liable for the cost of raising a healthy but unwanted child? Damages were limited to general and special damages incidental to the pregnancy and birth, such as, pain and suffering, loss of consortium, medical and hospital expenses, and loss of wages. *Personal Injury Newsletter*, June 7, 1982, Vol. 25, No. 25

Medical malpractice verdicts account for only 119 of the 672 seven-figure awards handed down by juries since 1962? Other awards were for product liability and personal injury cases. Median malpractice awards also are lower than the others. The median malpractice judgment increased from \$73,750 in 1971 to \$260,930 in 1981, while the product liability median award went up from \$71,500 to \$362,500. *Medical Economics*, June 21, 1982

MEDALERT-IV DIAZEPAM (VALIUM®)

Intravenous diazepam is used widely as an anesthetic induction agent, as an adjunct for procedures such as colonoscopies and gastroscopies, and as a supplement to local anesthesia. Although diazepam generally is considered a safe drug, incidents of apnea and respiratory distress have been associated with its intravenous administration. To reduce risks of adverse effects of IV administration of this commonly used drug, the following recommendations are made:

- 1. A carefully elicited drug history must be taken. Alcohol, barbiturates, phenothiazines, narcotics, MAO inhibitors, and other antidepressants are contraindications for IV diazepam. It also is contraindicated in some types of glaucoma and in patients with renal impairment.
- 2. IV diazepam should be administered through large veins only. The incidence of phlebitis is high when small veins are used.
- 3. Blood pressure must be taken and recorded prior to and subsequent to IV administration of the drug.
- 4. Resuscitation and suction equipment must be available immediately for use by the physician administering the IV Valium. If the physician is incapable of emergency intubation and resuscitation, then the drug should not be used unless another physician skilled in resuscitation is immediately available. The drug should not be used IV if the necessary resuscitation capability is not present and functional.
- 5. The patient should be observed carefully until transferred or discharged.
- 6. If discharged, the patient must be delivered into the custody of a competent adult. The patient must be warned to avoid driving or engaging in any potentially hazardous activity for 24 hours.
- 7. The patient should receive written discharge instructions and the receipt verified on the patient's chart.

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Dalmane [flurazepam HCI/Roche] Stands Apart

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The Physician's Sleep Glossary

Some common sleep laboratory terms

poly-som-no-graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la-ten-cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af-ter sleep on-set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to-tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.¹

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.²

re-bound in-som-nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.³

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Efficacy objectively demonstrated in the sleep laboratory—the most valid environment for measuring hypnotic efficacy.

In numerous sleep laboratory investigations patients fell asleep sooner, slept longer and woke up less during the night³⁻¹² with

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Dalmane®

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More total sleep time on nights 12 to 14 of therapy¹ and continued efficacy for up to 28 nights⁵ with

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The efficacy of Dalmane has been studied in over 200 clinical trials with more than 10,000 patients. *15 During long-term therapy, which is rarely required, periodic blood, kidney and liver function tests should be performed. Contraindicated in patients who are pregnant or hypersensitive to flurazepam.

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Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakenings; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital mallormations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depres sants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age Though physical and psychological dependence have not been reported on recommended doses abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, Gl pain, nervousness, talkativeness, apprehension, irritability, weakness palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occur rences of leukopenia, granulocytopenia, sweating flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depres sion, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity

Dosage: Individualize for maximum beneficial effect. Adults: 30 mg usual dosage; 15 mg may suffice in some patients. Elderly or debilitated patients: 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.





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Morris Harold Saffron, M.D.: A Man of Letters and History

How many dermatologists can you think of who have a Ph.D. degree in history from Columbia University and have a collection of books on historical medicine named for him, and almost single-handedly formed the Medical History Society of New Jersey?

There is only one such person—Morris H. Saffron, M.D., the first Archivist Historian of the Medical Society of New Jersey.

Morris Saffron is a cultured man, whose loves include music and the arts; yet, most of all he is a bibliophile: "From my father who was a great scholar I early imbibed a reverence for the printed book that has persisted to this day, and the great joy I have had in collecting books for well over half a century has been equaled only by the pleasure—sometimes I admit mixed with a tinge of poignancy—of seeing them depart forever from my shelves to serve a wider audience. Although Columbia, my alma mater, has been the principal beneficiary of these gifts, I might mention that at least five other institutions preserve today some of my former treasures."*

Dr. Saffron expressed his personal credo concerning books through two mottos in Latin: "The first comes from Jean Grolier, 16th century collector and patron saint of the famous club that bears his name. Grolier had embossed on all the bindings of his cherished library the words *Ioannis Grolieri et amicorum*, implying, of course, that he considered himself to be merely a temporary custodian of his precious books, and that they belonged not only to him but to his entire circle of friends and by extension to all mankind; the other motto states quite simply *amor librorum nos unit*, which I take to mean that the love of books creates among its votaries an everlasting bond."*

Morris Saffron is a writer and an editor. His books include Samuel Clossy: The Existing Works (1967), Medical Illustrations of Thomas Rowlandson (1970), Maurus of Salerno (1972), and Surgeon to Washington (1977). He has published numerous articles; most important to MSNJ was his commentary in the Journal of the American Medical Association, "New Jersey or Massachusetts?"; the article is reprinted on page 758.

In this scholarly epistle, Dr. Saffron skillfully defends the claim that the Medical Society of New Jersey is the oldest state medical society in the nation with "a continuous existence under law." In doing so, he took on the medical delegations of the AMA from Connecticut, New Hampshire, Vermont, Rhode Island, Maine, and Massachusetts. Such courage cannot go unrecognized!

Morris also is a teacher. He was appointed Professor of Medical History in 1958 at the newly opened Seton Hall College of Medicine and "delivered the first formal series of lectures on this subject in the state of New Jersey."** Dr. Saffron has continued to lecture on medical history as a

Visiting Professor at UMDNJ-New Jersey Medical School and Rutgers Medical School.

Above all, Morris Saffron is a student of history and is the consummate historian. He is a storehouse of oral history on many subjects, especially medical history. His comments at the meetings of the Medical History Society of New Jersey are pearls that are interesting, accurate, and pointed.

Dr. Saffron has chaired many groups including the Passaic County Bicentennial Commission, the City of Passaic Historical Commission, the Bicentennial Committee of the Medical Society of New Jersey, and the Friends of Columbia University Libraries. Dr. Saffron is Trustee of the New Jersey Historical Society and a Councilmember of the Renaissance Society of America and of the Grolier Club of New York. He is a member of the American Antiquarian Society, of the Century Association of New York, of the American and the International Associations for the History of Medicine, of the Medieval Society of America, and of the Archeological Institute of America.

Dr. Saffron was involved actively in the bicentennial celebration of 1976 and suggested the mounting of an exhibition entitled "Revolutionary Medicine in New Jersey" which was seen in Newark, New Brunswick, and Trenton.

Each of us recognizes that our judgments are determined by our own past experience and our tendency to harsh selfcriticism. Those of us with the best memories and with the fewest self-delusions make better judgments, but the decision-making process of organizations is vastly more difficult by a factor equivalent to the multitude of its members. For these and other reasons, it is vital that the nation's first medical society, a venerable and important group, has an Archivist Historian whose stature, experience, historical judgment, and honesty are beyond question.

Dr. Saffron's objectives as Archivist Historian will be to preserve the traditions and collective experience of our physicians and leaders, to collect and annotate memorabilia and historial material, and to establish an oral history program which will record the voices and experiences of older and distinguished practitioners. There is no more dedicated and able person for these tasks than Morris H. Saffron, M.D. To our Archivist Historian, we say Floreat ad multos annos!

Peter J. Guthorn, M.D. Arthur Krosnick, M.D.

^{*}Remarks of Dr. Saffron on the occasion of the dedication of The Academy of Medicine's Rare Book Collection, presented in Dr. Saffron's name to the UMDNJ-George F. Smith Library on October 18, 1978.

^{**}Morris H. Saffron Collection of Books on Historical Medicine: A Short Title Catalogue, George F. Smith Library of the Health Sciences, UMDNJ, Newark, 1980.

Patient Health Education: Who Pays?

For a decade or more, many of us have pondered so-called consumer health education and the problems of financial support for those essential activities. There has been progress, but it has been incomplete and dragging along at a snail's pace.

The concept of patient education had its beginnings in 1953 when the New Jersey State Legislature passed a Chronic Illness Law that mandated health education and other public health benefits for our citizens. The New Jersey State Department of Health took up the notion with gusto in several health control schema including its Diabetes Control Program. Diabetes is a model disease when it comes to such matters, but it is not the only chronic disorder where self-management techniques, nutritional knowledge and skills, and preventive exercises and decision making are the order of the day. Nevertheless, diabetes patient education grew from a mandate to a movement throughout the United States.

Enhancement of the concept was abetted by the attitude of acceptance of the medical and nursing professions, patients, and family members, and by the expansion of a growing professional specialty—health education. It became clear, to a large degree, that selected nurses and dietitians proved to be better teachers of the day-to-day self-management skills than physicians who tended to be more concerned with the therapeutic, metabolic, and clinical aspects of diabetes control. As the months and years rolled by, several simultaneous events developed. A study of New Jersey hospitals demonstrated that there virtually were no organized patient-education programs in existence. A number of national and state professional organizations then began to develop guidelines and curricula for training the educators and the patients as well. The UMDNJ-Rutgers Medical School implemented a Consumer Health Education Program, under the guidance of Anne R. Somers and others, which gave impetus and assistance to hospital personnel throughout New Jersey.

In those days there were no DRGs and very little concern about daily hospital rates, length of stay, or the portion of the national economic pie known as the GNP (Gross National Product) which was eaten by the "health industry." Doctors freely admitted patients with diabetes to hospitals for "control" and for education in self-management techniques.

The American Diabetes Association (ADA) recognized the need for inpatient education programs and these were started relatively painlessly.

The question of outpatient education programs, however, is a horse of another color. The ADA met with representatives of Blue Cross, Medicare, Medicaid, government, and private insurance companies; their proposal was to fund outpatient programs for diabetes education in order to shorten hospital stays or to prevent hospitalization entirely. The ADA swore that the carriers would save millions of dollars nationwide if such programs were instituted. Unfortunately, third-party payers were unwilling to take this giant step but did agree to include some financial support for inpatient education via the per diem rate. This was a big help, for a recent survey by the staff of the New Jersey Diabetes Demonstration Control Project (a C.D.C. federally supported program) showed that now there are 39 organized inpatient diabetes education programs in our state.

A catch-22 dilemma, however, prevented the ADA from obtaining funding for outpatient education. They were told

to "show that you can save hospital days and inpatient dollars by your outpatient education, and then we will consider funding."

Where are we now after a decade or two of head-banging and frustrating meetings, discussions, and letters?

- 1. There remains some third-party fiscal support for inpatient health education for diabetes, nutrition, cancer, ostomy, postmastectomy, coronary disease, and maternity.
- 2. This support is endangered by DRGs and the State Rate-setting Commission which may tighten the screws on hospital rates to the point where health education may be cut back or eliminated.
- 3. There is no national or New Jersey source at present that has expressed a willingness to fund this essential service.
- 4. Patients and their families keenly are aware of the preventive and therapeutic benefits of health education.
- 5. A multitude of health educators, probably underworked and underpaid, are standing in the wings and hoping to spring into action.

So, what can be done for prevention, self-management, and cost-containment through patient education? There are a number of options to be considered:

- 1. Organized outpatient education programs should be developed by responsible health agencies in accordance with available guidelines as to the qualifications of the educators and as to the content of the curriculum and the duration and process of the educational experience.
- 2. All third-party payers should be made aware of the existence of and the potential benefits to their overall fiscal picture from standardized patient education programs.
- 3. Such programs should be developed on a fee-for-service basis now!
- They should be located at convenient sites (hospitals, free-standing HMOs, health departments, visiting nurse offices, and other health agencies).
- 5. Times of educational programs should be convenient so all consumers who need the training will have the opportunity to obtain it.

There are a number of ways to finance such programs:

- 2. All sources of funds should be tapped for startup costs, salaries, supplies, equipment, and materials.
- 3. Participants (patients and family members) should be asked to pay a fee, which could be adjusted.
- 4. Hospitals in New Jersey are forming holding companies and consortiums for purposes of investment, the profits of which are turned back to the individual hospitals for the purchase of expensive equipment, capital expansion, and other uses that are deemed acceptable for not-for-profit institutions. Some of such funds could be directed to outpatient education activities.
- 5. Negotiations with insurance carriers should continue once the programs are in place and visible.

Health education is a worthy cause. Consumer health education, for both inpatients and outpatients, is a fiscally responsible means to help with nationwide health care cost containment. The parts of the puzzle are at hand. Only the will to put them together is needed.

Patient health education: who pays? Everyone pays!

A.K.

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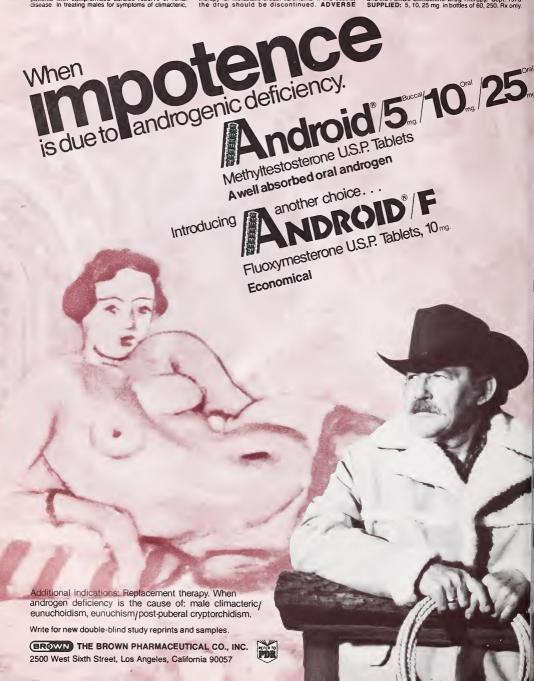


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Arterial Oxygen Saturation and Cardiac Rhythm During Transoral Fiberoptic Bronchoscopy

PHILIP L. SCHIFFMAN, M.D., ROBERT E. WESTLAKE, M.D., JON A. FOURRE, EILEEN T. LEONARD, New Brunswick*

Evaluation of the effects of transoral fiberoptic bronchoscopy on arterial oxygen saturation and cardiac rhythm revealed an average decrease in oxygen saturation of 5.4 percent and an incidence of ventricular premature contractions of 8 percent. Cardiac arrhythmias did not correlate well with the degree of arterial oxygen desaturation.

he introduction of fiberoptic bronchoscopy has revolutionized the practice of pulmonary medicine by allowing a well-tolerated examination of the tracheobronchial tree under local anesthesia with relatively low morbidity. The fiberoptic scope may be inserted transnasally or transorally via an endotracheal tube. While a majority of endoscopists prefer the transnasal approach, and use the transoral approach. The fiberoptic scope may be inserted transnasally or endoscopists prefer the transnasal approach, and use the transoral approach.

The effects of transnasal fiberoptic bronchoscopy on arterial oxygenation (as measured by arterial blood gas analysis)⁶⁻¹⁰ and on cardiac rhythm¹¹⁻¹³ previously have been reported. Shrader and Lakshminarayan found a significant correlation between major arrhythmias and arterial hypoxemia postbronchoscopy,¹¹ One cannot assume that this information is applicable to the effect of transoral fiberoptic bronchoscopy, as some endoscopists believe that the endotracheal tube used in the transoral approach causes increased airway compromise as compared to the transnasal approach,³ and because there are discrepancies among the data in the studies on the transnasal approach.⁶⁻¹⁰

In the following study, 50 patients (12 of whom received supplemental oxygen) were monitored for arterial oxygen desaturation and for cardiac arrhythmias while undergoing transoral fiberoptic bronchoscopy.

METHODS

Fifty-five consecutive patients undergoing transoral fiber-

optic bronchoscopy were studied. They were monitored for cardiac rhythm and arterial oxygen saturation (measured via ear oximetry). Thirty-eight patients (Group A) were bronchoscoped while breathing room air, and 12 patients (Group B) received supplemental oxygen. There was no significant difference in age between the groups (Group A: 50.9 ± 16.8 years; Group B: 53.4 ± 18.5 years) or in hematocrit (Group A: 38.4 ± 6.8%; Group B: 35.4 ± 8.7%). Five patients whose oxygen saturations could not be monitored effectively are not reported.

None of the patients received supplemental oxygen prior to the procedure (all have $P_a 0_2 > 51$ torr). There was no history of recent coronary ischemia or infarction in the patients. All patients were in normal sinus rhythm prior to bronchoscopy; however, one patient had frequent atrial premature contractions. The diagnoses are given in Table 1.

PROCEDURE

Patients were held without oral intake the night prior to the procedure. Each received 0.4 to 0.6 mg of atropine sulfate intramuscularly 30 to 45 minutes prior to the procedure. Meperidine and/or nembutal, in appropriate doses, also were given intramuscularly 30 to 45 minutes prior to pro-

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	TABLE 1	
L	Diagnoses	
Diagnosis	Group A	Group B
Pneumonia	10	4
Sarcoidosis	8	1
Lung cancer	4	3
Hemoptysis	9	0
Interstitial fibrosis	2	0
Bronchitis	3	1
Hypersensitivity		
pneumonia	†	0
Tuberculosis	1	0
Lymphoma	0	1
Radiation pneumonitis	0	1
Atelectasis	0	1
Total	38	12

cedure. Patients were administered topical anesthetic with 10 percent cocaine solution (maximum 5 cc) prior to bronchoscopic insertion and 5 percent cocaine solution (up to 10 cc) through the bronchoscope during the procedure. The fiberoptic bronchoscope (Olympus BF2) was lubricated with xylocaine jelly and passed transorally into the trachea and used as a guide for passing the endotracheal tube into the trachea; an 8.5 mm or a 9.0 mm uncuffed tube was used in all patients depending on the patient's size. In those patients receiving supplemental oxygen (Group B), a T-adapter, connected to a source of humidified oxygen at a flow rate of 4 liters/min, was attached to the endotracheal tube. F_iO₂ was not measured and may have varied from patient to patient depending on their minute ventilations.

MEASUREMENTS

Preoperatively, each patient had a 12-lead electrocardiogram and an arterial blood gas analysis including determinations of pH, P_aCO₂, and P_aO₂ (radiometer Copenhagen PKM 71 MK 2). Oxygen saturation was calculated. During bronchoscopy, arterial blood oxygen saturation was measured with an ear oximeter (Hewlett Packard 47201A) and cardiac rhythm was monitored. These parameters were observed continuously and their signals also were recorded continuously on a strip chart recorder (Datascope 7-65) for review following bronchoscopy. Thus, oxygen saturation at the exact moment of an arrhythmia could be determined.

RESULTS

Tables 2 and 3 summarize the results of all measurements, including base line arterial blood gases, the initial oxygen saturation at the beginning of ear oximetry, and the lowest measured arterial oxygen saturation during bronchoscopy. Table 4 lists the arrhythmias that occurred. No patients were dangerously hypoxic prior to bronchoscopy.

Oxygen saturation was monitored effectively throughout the fiberoptic bronchoscopy in 50 of the 55 patients (91 percent). Although previously stated that skin pigment does not affect measurements of oxygen saturation with this ear oximeter, 14,15 we found that skin pigmentation in 3 of 9 black patients did not allow proper measurements. In one patient, the ear piece would not stay affixed to the pinna for continuous measurement despite several attempts to reposition it, and in the fifth patient, the ear oximeter would not register, presumably because of anemia. Supplemental oxygen was given to these 5 patients who could not be monitored throughout the bronchoscopy and they are excluded from the study.

Oxygen saturation at the initiation of bronchoscopy was 93.4 ± 2.7 percent in Group B. Saturation varied during the procedures, both above and below this level. Saturation decreased an average of 5.4 percent in Group A and 1.7 percent in Group B. Oxygen saturation fell below 85 percent at some time during the procedure in six patients and below 80 percent in two patients in Group A. At no time did oxygen saturation fall below 89 percent in any patient in Group B. The ear oximeter used has been shown to be accurate within the range of 70 to 100 percent saturation, which was the range observed in this study. $^{14.15}$

In two patients with sarcoidosis, the lowest saturation occurred immediately following transbronchoscopic lung biopsy. The fall in oxygen saturation never was continuous during the procedures. Rather, sporadic dips occurred that tended to be of greater magnitude as the procedures progressed. The simultaneous decrease in saturation during some maneuvers commonly thought to cause hypoxemia, such as suctioning, lavaging, or inspecting the good lung in patients with unilateral lung disease, were not observed to cause simultaneous decreases in oxygen saturation, but may have had some accumulative effect.

Ventricular arrhythmias were uncommon. Ventricular premature contractions occurred in 8 percent of the patients, all of whom were over age 45. Their occurrence had no correlation with oxygen desaturation. Three patients had lung cancer without pericardial involvement and one patient had bacterial pneumonia. Sinus tachycardia (heart rate greater

TABLE 2 Arterial Blood Gases Prior to Bronchoscopy*						
	Group A Group B (n=38) (n=12)					
рН	7.42±.04 (7.30-7.54)	7.43±.07 (7.34-7.49)				
pCO₂ (torr)	34.6±4.0 (25-45)	34.4±6.8 (26-41)				
PO ₂ (torr)	76.4±13.1 (51.0-97.5)	75.7±16.1 (54-95)				
O ₂ Sat (%)	94.0±3.7 (85.0-98.1)	94.1±4.1 (87.9-97.1)				
*Mean ± standard deviation (range)						

Resu	TABLE 3 Its of Ear Oximetry						
Group A Group B							
Initial O₂ Sat (%)	93.4±3.0 (86-98)	95.7±2.7 (92-100)					
Lowest O₂ Sat (%)	88.0±4.0 (77-94)	94.0±2.7 (89-97)					
*Mean ± standard devia	ation (range)						

		BLE 4 rthmia:	s			
	Group A (n=38)		Group B (n=12)		Total (n=50)	
	No.	%	No.	%	No.	%
Sinus tachycardia	21	55	7	58	28	56
Sinus bradycardia Ventricular premature	2	5	1	8	3	6
contractions Atrial premature	3	8	1	8	4	8
contractions	2	5	1	8	3	6

than 100/min) was very common, occurring in 56 percent of patients. Three patients had transient sinus bradycardia (heart rate less than 60/min) while the topical anesthetic was applied to their epiglottis. Six percent of the patients had atrial premature contractions. Administration of oxygen did not decrease the frequency of arrhythmia.

DISCUSSION

Several studies have demonstrated the occurrence of arterial hypoxemia during transnasal fiberoptic bronchoscopy. 6-10 This led to the recommendation that supplemental oxygen be used during fiberoptic bronchoscopy routinely9 or in high-risk patients (i.e. those with arterial PO, less than 70 mm/Hg prior to bronchoscopy).6,7 Albertini et al. found a mean decline in arterial pressure of oxygen of 20 mm/Hg;6 therefore, they recommended that patients with arterial PO2's under 70 mm/Hg receive oxygen during bronchoscopy. This is to prevent patients from developing PO,'s less than 50 mm/Hg during the bronchoscopy. However, 20 mm was only the mean fall. Thus, some patients had greater decreases in PO, and some patients had smaller decreases in PO2. The reported range of decline in this study of PO₂ was 4 to 38 mm/Hg; this report suggests that some patients with PO2's greater than 70 mm/Hg may develop severe hypoxemia during bronchoscopy. Dubrawsky et al. studied oxygenation status in 62 patients undergoing transnasal fiberoptic bronchoscopy.7 Thirty-four patients did not receive supplemental oxygenation while 28 patients received supplemental oxygen via a 2 percent Venti mask. Dubrawsky et al. concluded that supplemental oxygenation is useful in patients whose initial arterial PO, is less than 70 mm/Hg; however, their data do not necessarily show this. Ten of 17 patients without supplemental oxygen whose arterial PO, was greater than 70 mm/Hg prior to the bronchoscopy, developed a PO, of less than 50 mm/Hg during or after the procedure. Thus, the actual data from Dubrawsky et al. might argue in favor of oxygen therapy in many patients whose PO2 is above 70 mm/Hg. Kleinholtz et al. looked at 10 patients undergoing transnasal fiberoptic bronchoscopy.8 This study found much less of a decrease in arterial PO2 and reported no patient developing oxyhemoglobin saturations of less than 80 percent. Salisbury et al. reported on the effect of fiberoptic bronchoscopy in patients with chronic airway obstruction and in normal volunteers.10 They found a mean decrease in PO, of 10 mm/Hg in the patients and 12 mm/Hg in the normal controls.

We felt it was unwise to assume that the published effects of transnasal fiberoptic bronchoscopy on arterial oxygenation should be used as guidelines for use of supplemental oxygen in patients undergoing transoral fiberoptic bronchoscopy for the following reasons:

1. No data are available on the status of arterial oxygenation during transoral fiberoptic bronchoscopy.

2. The added thickness of the endotracheal tube used in transoral fiberoptic bronchoscopy may have effects on ventilation not seen in patients undergoing transnasal fiberoptic bronchoscopy. (The effect of fiberoptic bronchoscopy through various size endotracheal tubes on airway resistance has been reported.)

3. It is not clear what the effects of transnasal fiberoptic bronchoscopy are on arterial oxygenation.

All the studies used arterial blood gas measurements obtained via arterial puncture or via indwelling percutaneous arterial cannula. In the present study, ear oximetry was used to measure arterial oxygenation.

While arterial blood gas determination is a highly accurate means of determining arterial oxygenation, it does entail two drawbacks when used as a monitoring device during bronchoscopy: there is a delay between the time the blood sample is obtained and the time the values are determined; and monitoring is not continuous so that unless a specimen is drawn at the nadir, the lowest levels may be missed. Ear oximetry has been shown to be an effective and accurate means of continuously and instantaneously monitoring arterial oxygen saturation.14,15 Scoggin et al. have suggested its use during fiberoptic bronchoscopy.15 The one drawback to ear oximetry is that the device measures only oxygen saturation and not partial pressure of oxygen. However, we felt that arterial saturation of oxygen was an adequate standard to judge the need for supplemental oxygen. In this study we report on the feasibility of using ear oximetry as a means of monitoring oxygenation during fiberoptic bronchoscopy and the effect of transoral fiberoptic bronchoscopy with and without supplemental oxygen on the patient's oxygenation and cardiac rhythms.

Ear oximetry was simple and effective to use in 50 of 55 patients on whom it was attempted. Heavy skin pigmentation may have been a factor in its ineffectiveness in 3 of the patients, although it was not a factor in 6 other patients. Oxygen saturation measured by ear oximetry prior to bronchoscopy correlated well with oxygen saturation determined from arterial blood gas analysis. Oxygen saturation dropped an average of 5.4 percent in these patients breathing room air.

Preoperative blood gases were not an adequate predictor of perioperative desaturation. Although the mean drop in arterial oxygen saturation in those patients breathing room air was 5.4 percent, there was a significant scatter. There was a poor correlation between preoperative oxygen saturation and perioperational saturation (R=.47). Three of the six patients whose saturation dropped below 85 percent and both patients whose saturation fell below 80 percent, started with a PO₂ greater than 70 torr. In all patients receiving supplemental oxygen at 4 liters/min via a T-tube adapter, oxygenation was well maintained throughout the procedure.

"Maldistribution of ventilation secondary to airway obstruction from the bronchoscope and/or bronchospasm leading to subsequent ventilation/perfusion mismatching appears to be the likely cause of the hypoxemia."

The cause of the hypoxemia is uncertain. Dubrawsky et al.⁷ and Salisbury et al. suggest that ventilation/perfusion mismatching is the cause, while Albertini et al.⁶ suggest either the above mechanism or the development of an intrapulmonic shunt as the cause of hypoxemia during the transnasal approach. Maldistribution of ventilation secondary to airway obstruction from the bronchoscope and/or bronchospasm leading to subsequent ventilation/perfusion mismatching appears to be the likely cause of the hypoxemia. Hypoventilation secondary to the increase in airway resistance caused by the insertion of the endotracheal tube and bronchoscope and/or the preoperative administration of

ventilatory depressing medication (i.e. nembutal and meperidine) is a less likely cause of hypoxemia. This cannot be excluded as we did not measure perioperative pCO_2 and minute ventilation. The episodic nature of the hypoxemia and the failure to demonstrate CO_2 retention in the previous studies where pCO_2 was measured do not suggest this as a cause. Similarly, the episodic nature of the hypoxemia makes shunting and diffusing impairment the least likely physiologic causes of hypoxemia in these patients. Likewise, no attempt was made to measure shunt fractions or diffusing capacity perioperatively.

Arrhythmias during fiberoptic bronchoscopy have been reported.3,11-13 Hypoxemia has been suggested as one of the causes.11 Table 4 records the frequency of arrhythmias observed in all 50 patients. Arterial oxygenation did not appear to be an important factor in the causation of most arrhythmias as there is no significant difference in frequency of arrhythmias between the groups, nor any correlation between the appearance of an arrhythmia and hypoxemia. Ventricular premature contractions were seen in 8 percent of patients, but not in any where oxygen saturation fell below 85 percent, and did occur in 3 patients when saturation was above 92 percent. In all patients with ventricular premature contractions, periods were observed where oxygen saturation dropped below the levels at which the ventricular premature contractions occurred without their simultaneous occurrence. Atrial premature contractions occurred in 3 patients (6 percent), one of whom developed contractions preoperatively. Sinus bradycardia occurred in 3 patients (6 percent), all during the topical application of anesthetic solution to the epiglottis, prior to bronchoscopy, probably secondary to vagal stimulation; they did not recur during bronchoscopy. Sinus tachycardia, the most common arrhythmia, occurred in 56 percent of the patients. It was not episodic and it lasted during most or all of the bronchoscopy when it occurred. It is possible that sinus tachycardia, in part, was related to premedication with atropine sulfate. Atropine sulfate is an anticholinergic medication frequently suggested for premedication in order to block vagal stimulation that occurs during the passage of the bronchoscope through the larynx and trachea.1,4 That vagal stimulation actually may be a problem is suggested by the occurrence of sinus bradycardia in 3 patients during application of topical anesthesia. Other possible causes of the sinus tachycardia (and the other arrhythmias) include fever, patient apprehension, medications (such as the cocaine used in anesthesia), and sympathomimetics and methylated xanthines used in treating airway disease.

This study demonstrates that the degree of arterial oxygen desaturation during transoral fiberoptic bronchoscopy is similar to that previously reported for the transnasal procedure, and that ear oximetry may be useful in monitoring arterial oxygen saturation during fiberoptic bronchoscopy. Furthermore, preoperative P_aO_2 is not a good predictor of serious intraoperative oxygen desaturation. Thus, now we monitor routinely oxygen status or give supplemental oxygen to all patients during transoral fiberoptic bronchoscopy. Such patients have a small risk (8 percent) of development of ventricular arrhythmias during bronchoscopy. Since the development of ventricular arrhythmias was not related to the patient's oxygenation during the procedure, we monitor cardiac rhythm during most procedures.

As this was not a controlled study, no implication should be made as to relative risk for development of hypoxemia and/or arrhythmia during transoral bronchoscopy as opposed to transnasal bronchoscopy. Such a comparison could not be made in our institution as the technique used (i.e. transnasal or transoral) often is determined by the clinical situation and/or the bronchoscopist's inclination. Effects of the newer and thinner bronchoscopes may be different than those described.

SUMMARY

The effects of transoral fiberoptic bronchoscopy on arterial oxygenation and its effect on cardiac rhythm was studied in 50 patients, 12 of whom received supplemental oxygen. The maximum decrease in oxygen saturation during bronchoscopy in patients breathing room air averaged 5.4 percent. The lowest saturation measured was 77 percent. Preoperative P₄O₂ was not a good predictor of desaturation during bronchoscopy. Oxygen supplementation at 4 liters/ min effectively prevented serious desaturation. Ventricular premature contractions occurred in 8 percent of patients. while sinus tachycardia occurred in 56 percent, sinus bradycardia in 6 percent, and atrial premature contractions in 6 percent. Electrocardiographic monitoring may be useful in patients undergoing transoral fiberoptic bronchoscopy. Administration of supplemental oxygen should be considered when oxygenation is not monitored.

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NDICATION: NDERIDE is indicated in the management of hypertension. (See boxed warming)
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IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of programoid interary Therefore when discontinuance of programoid is described with experimental programs. The programs of th having occult atherosclerotic heart disease, who are given propranolol for other indications

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use have not been adequately appraised. Special consideration should be given to propranolol's potential for aggravating congestive heart failure. Propranolol may mask the clinical signs of developing or communing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing propranolol slowly. Propranolol does not distort thyroid function

tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranciol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg

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Injuriorities unitables: Inlatides sirculul de used with Caution in severe renal disease. In patients with renal disease, thisazides may precipitate azotemia in patients with impaired renal function, cumulative effects of the drug may develop. Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate henatic coma

cipitate nepatic coma. This area may add to or potentiate the action of other antihypertensive drugs. Potentia-tion occurs with ganglionic or perpheral adrenergic blocking drugs. Sensithity reactions may occur in patients with a history of allergy or bronchial asthma. The possibility of exacerbation or activation of systemic lupus erythematosus has been

reported

WSE IN PREGNANCY: Propranoiol hydrochloride (INDERAL*): The safe use of propranoiol in human pregnancy has not been established. Use of any drug in pregnancy or
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weighed against the expected therapeutic benefit. Embryotoxic effects have been seen in

animal studies at doses about 10 times the maximum recommended human dose
Hydrochlorothlazide: Thiazides cross the placental barrier and appear in cord blood. The
use of thiazides in pregnant women requires that the anticipated benefit be vergited
against possible nazards to the fetus. These hazards include fetal or neonatal gind ce,
thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.
Nursing Mothers: Thiazides appear in breast milk. If the use of the drug is deemed essential, the patient should stop nursing.
PRECAUTIONS: Propranolol hydrochloride (INDERAL'): Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if propranolol is administered. The added catecholamine blocking action of this drug may then produce an
excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharmaclogic activity of propranolol may produce hypotension and/or marked bradycardia resulting in vertige, syncopal attacks, or orthostatic hypotension.

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is, sialadettinis. Central Nervous System: dizziness, vertigo, paresthesias, headache, xanthopsia. Hematologic, leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia. Cardiovascular: orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

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Percutaneous Fine-Needle Biopsy Using Direct Imaging Techniques

KENNETH L. JEWEL, M.D., and STEPHEN KIMLER, M.D., Montelair*

Percutaneous fine-needle biopsy is a safe, reliable, cost-effective method of obtaining tissue for the diagnosis of malignant disease. Using a system of direct imaging guidance, a high accuracy rate (84 percent) can be obtained with minimal complications.

ercutaneous fine-needle biopsy (PFNB), utilizing various radiologic imaging techniques, is a useful procedure which has been reported to be an effective and accurate method for nonoperative removal of tissue for diagnosis of suspected neoplasm. Occasionally, the obtained information can lead to interventional radiographic procedures for the treatment of these disease entities as well. Virtually any accessible diffuse or localized lesion in any organ or anatomical space can be evaluated with fine-needle biopsy technique.

Following the early report by Dahlgren and Nordenstrom in the 1960s,¹ other workers confirmed the safety and effectiveness of PFNB in many anatomical locations throughout the body. PFNB has been used widely and some technical change in the performance of these studies has occurred as well. Originally described in pulmonary parenchymal lesions with cytological technique, PFNB now has been utilized in sampling tissues from the mediastinum,²⁴ liver,⁵⁻¹ø pancreas,* retroperitoneum,⁰ lymph nodes,¹⁰¹¹ bone, ¹² adrenal glands,⁰¹¹³ kidneys,⁰¹⁴ and spleen.⁰ Various radiographic imaging methods including computerized tomography (CT), ultrasonography, and fluoroscopy have been utilized to localize correctly and define more accurately a variety of suspected masses in order to yield a high success rate of tissue removal for pathologic evaluation.

Since June, 1979, we have performed 120 biopsies in various anatomic locations utilizing PFNB. All of these studies were aided by CT, ultrasonography and/or fluoroscopy, or a combination of these imaging guidance systems. We intend to report the success of this technique and to document its usefulness in the diagnosis of malignant disease.

METHODS AND MATERIALS

Between June, 1979, and January, 1982, 120 consecutive percutaneous biopsies were performed. The majority (over 90 percent) were performed under CT guidance while a few patients underwent biopsy with only fluoroscopic control when the lesion was large enough to be visualized readily. Fine-needle aspiration biopsy technique was used in all cases.

A variety of biopsy instruments have been used including the Chiba needle, Greene biopsy needle, the Turner tumor mass biopsy mass needle, and, most recently, the Franseen biopsy needle. (All needles are 22 gauge.**) Experience indicates that the Franseen biopsy needle has been the most successful in yielding diagnostic tissue samples.

Ferrucci¹³ and Haaga⁹ have described appropriate localization techniques.

After careful evaluation of the diagnostic CT scan, the patient is placed in a position so as to allow the shortest, least traumatic, and most direct access to the mass that is to be biopsied. Although it is preferable to avoid large vessels and hollow viscera, these have been traversed in this series without sequelae because of the small needle gauge. A radiopaque catheter is used as a marker on the skin while scanning the patient and, subsequently, an indelible ink marker is utilized to label the skin permanently. Local anesthesia is used for the skin and subcutaneous tissues. Careful CT measurements of the depth from the skin surface to the mass are performed and the appropriate fine needle

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Figure 1—A somewhat irregularly marginated mass (m) in the right posterior lung. A 22-gauge fine needle (>) is positioned in the center of the lesion (a is descending thoracic aorta). Bronchogenic carcinoma was diagnosed on the needle aspirate.

then is placed within the mass. Proper needle position is confirmed using repeat CT sections and three to six aspiration biopsies are performed using a back and forth motion while constant negative suction is applied to the needle. The number of aspiration biopsies varies with the size and location of the lesion as well as the quality and quantity of the aspirated material obtained. All biopsies are performed by the radiologist in the presence of a pathologist. The specimen is placed on a sterile glass slide and immediately given to the pathologist.

PATHOLOGIC MATERIALS AND METHODS

The samples consisting of fluid with or without tissue fragments are removed from the aspiration needle either by a thin stylet or by forcing air through the needle. Tissue fragments, if present, are removed and placed in 10 percent formalin. The remaining blood or fluid is smeared on a slide and placed immediately in 50 percent alcohol. Speed is of the utmost importance to prevent drying artifacts. In some cases, particularly with liver aspiration biopsies, a considerable amount of bloody fluid can be aspirated. This material is allowed to clot and is fixed as a cell block. The best direct smear slides are obtained with hemotoxylin and eosin (H & E), while the remainder are stained with routine Pap stain techniques. The tissue fragments and cell block specimens are processed as routine histologic specimens and stained with H & E.

RESULTS

Prior to clinical work with thin-needle aspiration biopsies, the Department of Pathology evaluated the procedure by obtaining samples from a wide variety of autopsy and surgical specimens. This not only afforded the pathologist an opportunity to study a variety of normal and pathologic tissues, but enabled the pathologist to develop criteria for the adequacy of a sample, optimal specimen handling, and differential diagnosis.

During this initial phase, a number of stains were evaluated and it was determined that the H & E stain was superior to the Pap stain for cytological preparations. It also was found that small tissue fragments, varying from a fraction of a millimeter to several millimeters in size, could be obtained with minimal distortion during the procedure and that these fragments could be fixed and processed with routine histologic methods.



Figure 2—The proper positioning of a 22-gauge biopsy needle (>) within a bulky, large retroperitoneal paraaortic mass (m) adjacent to the abdominal aorta (a). An additional mass is seen arising from the right kidney (k).

After establishing a routine for the appropriate handling of pathologic material 120 consecutive patients who had been referred to the Department of Radiology underwent PFNB. The majority of these biopsies were performed for chest masses, suspected liver metastases, pancreatic masses, and retroperitoneal lesions (Table). The results were considered positive when a diagnosis of malignancy was established or when a specific benign diagnosis either was made cytologically or histologically. False negative diagnoses were recorded when a proved malignant diagnosis was obtained subsequently by other means (thoracotomy, exploratory laparotomy, or mediastinoscopy) and the initial PFNB had been reported as negative for malignancy. False positive cases did not occur in this series so that the specificity is 100 percent. True negative cases were reported when a benign disease process was identified with PFNB and subsequently proved by clinical followup or other diagnostic means. The overall accuracy rate in this series was 84 percent.

Complications of the procedure were limited to those patients undergoing lung and/or mediastinal biopsy. Five cases of pneumothorax developed; two patients required chest tube insertion. Hemoptysis occurred in approximately 10 percent of patients who had lung biopsies; one patient developed hemothorax which was self-limited and required only supportive medical therapy. No complications were encountered in the abdominal or retroperitoneal biopsies. Liver biopsy was performed in two patients with prolonged clotting functions and definite coagulopathy in whom routine Menghini needle biopsy techniques were contraindicated; they withstood the fine-needle aspiration technique without any complication. One case suspected of being a retroperitoneal mass was proved to be a large abscess which then was drained utilizing percutaneous drainage technique described by Gerzof.19 Two additional cases which subsequently were proved to be hepatic cysts were biopsied and drained and two pancreatic pseudocysts also were drained and have been followed for 11/2, years without recurrence.

DISCUSSION

PFNB is a safe, reliable, and cost-effective means of establishing correct tissue diagnosis. When used with an image guidance system (preferably CT), the actual suspected tumor may be localized readily and tissue sampling can be performed with greater accuracy. This is true in small tumors, where the lesion is deeply situated, is obscured by

			TABLE					
			Biopsies					
Anatomic	Number							Overall
Site	Biopsied	TP	TN	FP	FN	Sensitivity	Specificity	Accuracy
Chest	55	32	12	0	9	78%	100%	80%
Liver	26	19	5	0	2	90%	100%	92%
Pancreas	14	8	3	0	3	72%	100%	79%
Kidney	7	4	2	0	1	80%	100%	86%
Abdominal or retro- peritoneal mass								
(including lymph node)	11	7	2	0	2	77%	100%	82%
Bone	7	6	1	0	0	100%	100%	100%
Total	120	76	25	0	17	82%	100%	84%
TP=True Positive	TN=True	Negative	FP=	False Posit	ive		FN=Fals	se Negative
Sensitivity= (TP)		Specific	city= (TN			Overa	II Accuracy:	
(TP+FN)			(TN+F	P)			Т	otal # Biops

other viscera, or is only a small part of a larger organ. Several cases, incorrectly reported to have negative liver biopsy utilizing the blind Menghini needle technique, have been diagnosed correctly with this direct guidance system approach

In the current age of rising health care costs, PFNB is dramatically cost effective as has been documented by Mitty.8 Many patients can be examined as outpatients through same-day surgery suites, completely eliminating overnight stays within the hospital. Exploratory laparotomy to stage lymphoma or to diagnose inoperable pancreatic carcinoma can be eliminated entirely. Carcinoma of the lung with or without mediastinal and/or pleural extension can be correctly diagnosed with PFNB and unnecessary thoracotomy or mediastinoscopy can be avoided. In addition, this technique is accompanied by an extremely low complication rate and results in essentially little or no patient discomfort.

PFNB is obtaining increasing acceptance.¹⁰ The use of a small-gauge, thin-walled needle results in a low complication rate as described in this series and by other workers.^{15,16} The diagnostic yield is high, varying between 80 and 90 percent.^{3,12,13,17,18}

This series confirms the experience reported in large university centers and illustrates the applicability of PFNB to patients in community hospitals where interventional radiologic expertise exists. Occasionally, the results of these diagnostic techniques can lead to appropriate interventional radiologic measures such as biliary bypass procedures, abscess drainage, and cyst and pseudocyst drainage.

SUMMARY

Using direct imaging guidance, preferably by computerized tomography, percutaneous fine-needle aspiration biopsy can yield a very high accuracy rate (84 percent) in the diagnosis of malignant disease. This procedure, performed by the interventional radiologist in the presence of an interested and cooperative pathologist, dramatically can be cost effective, safe, and highly reliable. It may be employed on an outpatient basis. At our institution we studied 120 consecutive cases to verify the usefulness of this procedure in obtaining pathologic tissue from many anatomic sites including the chest, liver, pancreas, retroperitoneum, and kidneys.

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Clinical Use of Recombinant DNA Techniques: The Antenatal Diagnosis of Sickle Cell Anemia

JAMES R. JONES, M.D., VALENTINO ROMANO, Ph.D., MICHAEL BERNARD, B.S., MICHAEL SHAW, FRANCESCO RAMIREZ, Ph.D., Piscataway*

The diagnosis of sickle cell states in utero can be carried out in a large percentage of the at-risk population. The method makes use of the observation that frequently the β S-globin gene yields a 13 kb fragment when digested with the restriction enzyme, HpaI; the normal β A-globin gene yields a 7.6 kb fragment. This testing can be extended in the sickle population by the use of a second restriction enzyme, Hind III.

o most practicing physicians, the concepts of recombinant DNA appear confusing and ultrafuturistic. In the past five years, this technology evolved and developed its own language: restriction enzymes, cDNAs, clones, Hpal, Hind III, introns, and exons. Studies dealing with recombinant DNA techniques tend to be published in specialized journals; even there, only a small percentage of the readership has an indepth knowledge of the methodology. Thus, the youth of the recombinant technology combined with the maturity of the practicing physician result in almost irretrievable confusion and frustration.

The paradox is that the ultrafuturistic issue simply is not true. While it is clear that those exotic tasks such as human cloning and massive genetic engineering which uninformed persons assign to recombinant DNA methods are unfathomable at this time, a cornucopia of clinical products of recombinant research immediately are upon us. Within the lifetime of almost everyone reading this article, there will occur a large scale *in vitro* production of human hormones and other human substances by man-made clones. Within the lifetime of absolutely everyone reading this article, clinical gene analyses using recombinant DNA methods have been developed and are carried out today.

Gene analyses are not chromosome analyses. Chromosomes are gene carriers and all of an individual's 46 chromosomes seem to have the capacity for one or two million genes. A gene may be viewed as a very small subset

of a chromosome, i.e. a relatively discrete packet of DNA that seems to be devoted to a specific aspect of protein synthesis. There are genes devoted to the structuring of a protein; there are other genes whose sole function is the modification of the structure of the same protein. There are other genes that regulate the functioning of the structural genes; and other genes that regulate these regulating genes. Genes control all protein synthesis and genes control genes.

The purposes of this paper are: to introduce the clinician to some of the language of this technology of gene analysis; to demonstrate that specific analyses are applicable directly to patient care; and to point out the implications of these most discriminating testings.

The clinical model we shall use is the antenatal diagnosis of sickle cell anemia.

THE PROBLEM

Normal adult hemoglobin (HgbA) consists of four polypeptide chains, two α - and two β -globin chains (Figure 1). The production of the α -globin chains is directed by four α genes and the production of the β -globin chains by two β genes, referred to as β^{Λ} genes.

In the patient with sickle cell anemia (HgbS), the a chains of the sickle hemoglobin are normal and, therefore, the four

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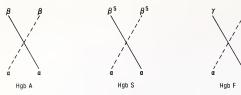


Figure 1—Three types of hemoglobin are illustrated. Note that in fetal hemoglobin (HgbF) the β -globin chains found in normal adult (HgbA) and sickle (HgbS) hemoglobin have been replaced by γ -globin chains. The broken and dashed lines indicate the directions of the globin chains.

a genes are normal, but the β chains are abnormal (Figure 1). In sickle hemoglobin the amino acid valine is substituted for glutamic acid at a specific point in both β chains. This single amino acid substitution occurs because there is an error, a point mutation, in the DNA base sequences of both β genes (β ⁸ genes). Specifically, the codon GAG (G: guanine; A: adenine) is replaced by GTG (T:thymine). In contrast, an individual with sickle trait (HgbAS) has one normal β -globin chain and one abnormal β -globin chain and, therefore, only one of the two β genes has the base sequence error (β ^A β ⁸). Although sickle cell anemia can be a devastating disorder, sickle trait is not a disease and should be viewed properly as a variation upon the normal.

The inheritance of an individual's two β genes follows the normal Mendelian laws of genetics. From a couple, each of whom have sickle trait (HgbAS from $\beta^{A}\beta^{S}$), 25 percent of the offspring will be normal (HgbA from $\beta^{A}\beta^{A}$), 25 percent of the offspring will have sickle cell anemia (HgbS from $\beta^{S}\beta^{S}$), and 50 percent of the offspring will have sickle trait (HgbAS from $\beta^{A}\beta^{S}$).

The diagnosis of sickle cell states in the adult is established relatively easily by hemoglobin electrophoresis that discriminates, both qualitatively and quantitatively, between HgbA and HgbS. The patient in utero, however, is both physically and physiologically removed from such easy assessment. There are two major problems in making the diagnosis of sickle disorders in the fetus.

- 1. Acquisition of fetal blood for electrophoresis is formidable. Fetal blood can be obtained by sampling blood either from the placental-maternal interface (placental aspiration) or directly from a fetal blood vessel while under direct intrauterine observation (fetoscopy). Both methods have their problems. Since placental aspiration is a mixture of maternal and fetal blood, it is always difficult to assume one has the appropriate sample. Fetoscopy requires the insertion of a fibrooptic telescope and a sampling device into the uterus and, obviously, this is not a simple procedure and few centers have the capability and the expertise to carry out fetoscopy. Although placental aspiration and fetoscopy are complex procedures, they are being investigated.
- 2. The second, more significant problem is the physiologic fact that the fetus does not produce HgbA primarily. The major hemoglobin in fetal life is fetal hemoglobin (HgbF) which is constructed of the same two α -globin chains found in adult hemoglobin. But instead of the β -globin chains, γ -globin chains are substituted (Figure 1). The production of the α -globin chains of HgbF is directed by the same four α genes that determine the α -globin chains of HgbA, but the production of the γ -globin chains is directed by four γ genes. The fetus will function on HgbF throughout most of fetal life and will begin to produce large amounts of the β -globin

chains to replace the γ -globin chains (HgbF \rightarrow HgbA) only toward the end of the pregnancy. In fact, HgbA will not be the individual's primary hemoglobin until two to three months after delivery. Since sickle cell states are disorders of the β -globin chains, the result of this dynamic fetal hemoglobin production is that the fetus destined to have sickle cell disease does not have sickle cell anemia in utero.

The prenatal diagnosis of sickle cell disease is the diagnosis of a disorder before the disorder exists.

A SOLUTION

A possible solution may be found in the fact that although the fetus is producing and functioning on large quantities of HgbF, it still has the β -globin genes in the nucleus of each of its cells. The β genes are present whether they actively are directing β -globin chain production or not. The key, therefore, of the antenatal diagnosis of sickle problems may be the analysis of the β genes.

The first step in any gene analysis would be the isolation of the normal genes; the isolation of genes requires the following fundamental steps:

- 1. Isolation of the messenger RNA (mRNA) for the protein in question.
- Conversion of the mRNA to complimentary DNA (cDNA).
 - 3. Radioactivation of the cDNA with 32P.

The isolation of the mRNA is the most adventurous step, requiring numerous recombinant DNA techniques including cloning and mapping. The converting of the RNA back to the cDNA utilizes a specific enzyme, reverse transcriptase. Basically, the cDNA is the gene itself. Radioactivation of the DNA with ³²P allows one to "see" the genes and, therefore, to compare these normal genes with unknown genes.

The analysis for the unknown gene(s) would be completed in the following manner:

- Cells from the patient are obtained and the DNA isolated.
- 2. The DNA is cut biochemically into smaller fragments using restriction enzymes.
- These restricted fragments are made radioactive (³²P) and separated.
- 4. The radioactive restricted fragments containing the unknown genes are compared with the known normal radioactive genes.

A few important points about this analysis may help. The DNA is obtained from the patient's cells without culturing of

"A gene may be viewed as a very small subset of a chromosome, i.e. a relatively discrete packet of DNA that seems to be devoted to a specific aspect of protein synthesis."

the cells since only about ten thousand cells are needed for analyzable amounts of DNA. The DNA must be cut into manageable segments; this is carried out by specific restriction enzymes. A restriction enzyme is a substance that always will recognize and cut DNA at specific base sequences. For example, the restriction enzyme Hpal always will recognize the DNA base sequence, GTTAAC (C: cytosine) and it is at

that point that it will cut or restrict the DNA. Each restriction enzyme has its unique site of recognition and restriction.

The above description of a gene analysis illustrates one extraordinary point: potentially, any gene can be isolated and analyzed. Given the mRNA, the major accomplishment, any gene in the entire genetic makeup of an individual is available for study.

It should be obvious that the above gene analysis method is tedious and requires a great deal of expertise and experience. Essentially, this was the situation until 1978 when Kan and Dozy made an extraordinary observation in sickle cell disorders.1 They found that human DNA, from individuals without sickle problems, when digested with the restriction enzyme HpaI usually yielded the normal β^A gene in a restricted fragment that was 7,600 bases (7.6 kb) in length; but the DNA from a large percentage of Afro-Americans with sickle problems when digested with Hpal yielded the $\beta^{\rm S}$ gene that occurred in a fragment that was 13 kb in length (Figure 2). Note that HpaI does not cut through the β gene where the sickle mutation is, but rather about 5,000 bases to the right of the gene. Therefore, Kan and Dozy's observation, in addition to the mutation found within the β^{S} gene, indicated that there is an associated mutation in the DNA adjacent to the β^{S} gene that prevents the HpaI from cutting

"The prenatal diagnosis of sickle cell disease is the diagnosis of a disorder before the disorder exists."

at its usual place. Thus, in an individual with HgbA $(\beta^{A}\beta^{A})$, restriction of double-stranded DNA with Hpal usually will yield the two β^{A} genes in two fragments both 7.6 kb in length; in a sickle trait patient $(\beta^{A}\beta^{S})$, the Hpal fragments usually are 7.6 and 13 kb in length; and in the sickle cell anemia patient $(\beta^{S}\beta^{S})$ both fragments usually are 13 kb in length. These Hpal fragments found in a sickle family are shown in Figure 3

In the antenatal diagnosis of sickle problems using the Hpal restriction enzyme method, the following steps are taken:

- 1. Both mother and father are confirmed as having sickle trait (hemoglobin electrophoresis) and both have the HpaI analysis carried out on the DNA extracted from their peripheral leukocytes.
- 2. Any homozygous (either HgbA or HgbS) offspring of the couple also has the confirmatory hemoglobin electrophoresis and the HpaI analysis.

3. An amniocentesis is carried out to obtain fetal cells (fundamentally all cells in the amniotic fluid are fetal) and the Hpal analysis is carried out on the fetal cells.

An example of such a family is shown in Figure 4. Both father and mother have proven sickle trait and their HpaI analyses showed 7.6/13 kb for each. A homozygous sickle cell anemia daughter showed 13/13 kb. These observations inexorably linked the 13 kb fragments with the β^{S} genes and the 7.6 kb fragments with the β^{A} genes. The amniotic fluid cells showed 7.6/13 kb fragments indicating that the fetus possessed the normal β^{A} gene (7.6 kb) and the β^{S} gene (13 kb). It was predicted accurately, therefore, that the newborn will have sickle trait.

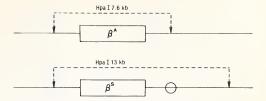


Figure 2—Hpal enzyme digestion of human DNA containing the β^A gene yields a fragment that is 7.6 kb in length; Hpal digestion in the presence of the β^S gene usually yields a fragment of 13 kb. The circle on the strand of DNA to the right of the β^S gene indicates the associated mutation that prevents the cutting of the Hpal restriction enzyme.

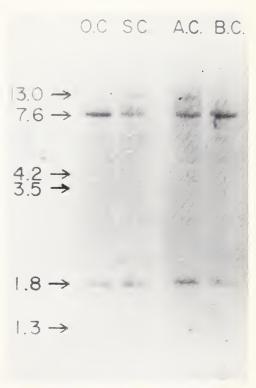
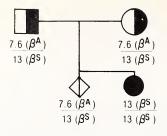


Figure 3—Hpal fragments (7.6 and 13 kb) found in a sickle family, S.C. (7.6/13 kb) and A.C. (7.6/13 kb) are the sickle trait parents and O.C. (7.6/7.6 kb) and B.C. (7.6/7.6 kb) are normal (HgbA) offspring. The lower bands are other Hpal generated fragments.

A problem exists with the Hpal analysis in that not all patients with sickle problems have the β^8 gene associated with the 13 kb fragment. According to Kan and Dozy, in only 68 percent of the sickle population is the β^8 gene linked with the Hpal 13 kb fragment.² Therefore, 32 percent of those with the β^8 gene will show the 7.6 kb fragment. In addition, while 97 percent of the sickle population will have the normal β^A gene linked with the 7.6 kb fragment, 3 percent will have the β^A gene linked with the 13 kb fragment.



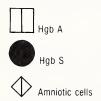


Figure 4—Pedigree of a sickle family in which the Hpal 13 kb fragments definitely were linked to the β^S gene. The fetus was shown to have sickle trait.

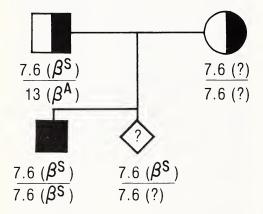


Figure 5—Pedigree of a sickle family in which one of the fetal Hpal fragments could not be linked definitely to the β^A or β^S gene. One of the fetal 7.6 kb fragments is clearly the 7.6 kb (β^r) from the father but there is no indication as to which of the mother's 7.6 kb fragments (the β^A or the β^S) the fetus demonstrated. With the Hpal study alone, the fetus could be sickle trait or sickle cell anemia.

In the HpaI test, it critically is important to be able to link the HpaI fragments to the appropriate β gene. Thus, using only the HpaI test the analysis of the homozygous (either normal or sickle cell) offspring is critical. In Figure 4, the HgbS offspring directly linked the 13 kb fragments to the β s gene, and therefore, the fetal cell finding of 7.6/13 kb could be only sickle trait. Consider, however, the family in Figure 5. Both mother and father were shown to have sickle trait; the HpaI analysis showed that father is 7.6/13 kb, but mother is 7.6/7.6 kb. The homozygous HgbS son showed 7.6/7.6 kb. We know, therefore, that the 13 kb fragment in father represents that 3 percent of the population in which the 13 kb is associated with the normal β ^ gene. But what

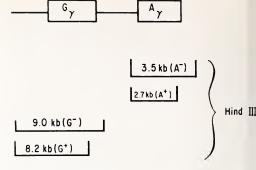


Figure 6—Hind III digestion of human DNA containing the $^G\gamma$ and $^A\gamma$ genes yields fragments that are classified as G^+ or G^- and A^+ or A^- .

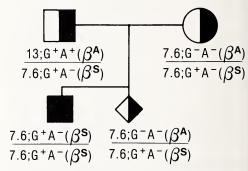


Figure 7—Pedigree of the same family as shown in Figure 5 to which the Hind III analysis has been added. The homozygous (HgbS) son shows that it is the 7.6; $G^{+}A^{-}$ fragments that are associated with the β^{S} gene. Since the fetus showed 7.6; $G^{+}A^{-}$, it accurately was predicted the newborn would show sickle trait.

about mother? She has sickle trait but she shows 7.6/7.6 kb; she is one of the 32 percent in whom the β^8 gene is associated with the 7.6 kb fragment. Now, the question is the fetus. The fetus showed 7.6/7.6 kb and clearly one of the 7.6 kb fragments is from father and it is linked with the β^8 gene. But which of mother's 7.6 kb fragments are represented: the maternal 7.6 kb linked with the β^8 gene in which case the fetus will have sickle cell anemia or mother's 7.6 kb linked with the β^A gene in which case the fetus will have only sickle trait? A seemingly impossible problem.

Let us introduce the concept of a second analysis using another restriction enzyme, Hind III.

Recall that fetal hemoglobin is composed of the same two α -globin chains as adult hemoglobin and these α chains are coded for by the four α -globin genes.

Also, two γ -globin chains replace the two β -globin chains in fetal hemoglobin and the γ -globin chains are coded for by the four γ genes. The four γ genes are divided into two $^{\Delta}\gamma$ genes and two $^{S}\gamma$ genes (Figure 6). When an individual's DNA is digested with the restriction enzyme Hind III (which recognizes and cuts at the AAGCTT sequence) the $^{G}\gamma$ gene may yield a 9.0 kb fragment (referred to as G-) or an 8.2 kb fragment (G+). By the same token, in reference to the $^{\Delta}\gamma$ gene, Hind III may yield a 3.5 kb fragment (A-) or a 2.7 kb

fragment (A^+) , For example, an author's (JRJ) DNA upon Hpal digestion shows 7.6/7.6 kb, and with Hind III digestion shows G^+A^*/G^*A^* .

Let us apply this second restriction enzyme analysis to the above problem family (Figure 7). In the sickle cell anemia (homozygous) offspring, the Hpal analysis showed 7.6/7.6 kb and the Hind III analysis showed G+A-/G+A-. We know that the 7.6;G+A- fragments are associated with the β^8 gene. Since the sickle cell son showed 7.6;G+A-/7.6;G+A- and mother showed 7.6;G+A-/7.6; G-A-, we know that the mater-

"In the patient with sickle cell anemia, the α chains of the sickle hemoglobin are normal and, therefore, the four α genes are normal, but the β chains are abnormal."

nal 7.6;G·A· must be linked with the normal β^{A} gene. The fetus showed 7.6;G·A· (β^{S} from father)/7.6;G·A· (β^{A} gene from mother). The fetus, therefore, accurately was predicted as having sickle trait.

It is estimated that by using the HpaI and the Hind III analyses, more than 80 percent of sickle couples are candidates for successful antenatal testing. In our experience, 4 of 21 families were unsuccessful candidates for the antenatal diagnosis of sickle cell anemia. In the remaining families, the hematologic status of the fetus accurately was predicted using either the HpaI analyses or in conjunction with the Hind III analysis.

COMMENTS

In the above application of restriction enzyme analyses to the antenatal diagnoses of sickle problems, it is evident that the methods are somewhat "roundabout." Neither the HpaI nor the Hind III enzyme cuts through the β gene mutation that produces the sickle hemoglobin. Linked mutations (the HpaI 7.6 and 13 kb fragments) or normal γ gene polymorphisms (G+A+, G-A-) are used to attempt to identify the abnormal gene. At the time of this writing, there are investigations underway using other restriction enzymes that cut directly at (or close to) the sickle mutation; the problems of fragment linkages with the β genes probably will disappear

soon.5 Ultimately it may evolve that only the fetal amniotic cell analysis will be required for the identification of the normal, the heterozygous or the homozygous fetal states.

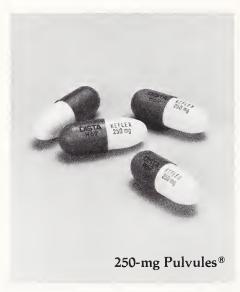
Sickle cell anemia is not the only hereditary hemoglobinopathy that has been diagnosable antenatally. Hemoglobin C seems similar to HgbS in its susceptibility to antenatal diagnosis. In fact, it appears to display the same Hpal variations as found in sickle problems. Many of the classic thalassemias are suitable for antenatal gene analysis. Recalling the fundamental method, most hereditary disorders can and will be attacked. Cystic fibrosis, Huntington's chorea, and osteogenesis imperfecta currently are under active investigation.

There is, of course, a potential danger. The danger perhaps is philosophic. Every person reading this article has from 5 to 15 mutations. The significance of these mutations is unknown at this time. Almost all the mutations are harmless, go forever unnoted, and are not important clinically. But, what if one is faced with an array of gene analyses on an unborn child and they all aren't "perfect" analyses? For the obvious disorders the clinical answers may be clear, but as the methodology matures, so will the complexity of the disorders analyzed. Let us presume (and it certainly is not unrealistic) that one could predict the development of adultonset diabetes during the first three or four months of fetal life. This would be the detection of a disorder perhaps 40 to 50 years before it will occur. Gene analyses on the unborn may provide a preview of adult disorders, but these disorders may not be apparent until long after the diagnosing physician has left. Our accountability soon will exceed our lifetime.

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- 5. Geever, RF, Wilson LB, Nallaseth FS, Milner PF, Bittner M, Wilson JT: Direct identification of sickle cell anemia by blot hybridization. *Proc Natl Acad Sci* 78:5081-5085, 1981.

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Head and Neck Examination and Audiometric Screening in Institutionalized New Jersey Mental Patients

JAMES LABAGNARA, Jr., M.D., ERIC WINARSKY, M.D., KI HAN, M.D., Newark*

This study reports the results of head and neck examinations and audiometric screening of 2,803 institutionalized mental patients in New Jersey. An attempt was made to assess the number of hearing-impaired patients and to determine if any severely impaired patients had been institutionalized primarily because of their communicative handicap.

his study was undertaken primarily to screen the hearing capability of a large number of institutionalized mental patients. Our objectives were: (1) to determine the hearing abilities of this skewed population; (2) to determine if any patients with severe hearing impairment have been hospitalized inappropriately because of their lack of ability to communicate; and (3) to complete simultaneously extensive head and neck examinations in the same population.

We thought that this large group of patients represented a unique population that was outside the usual health parameters of the community. We sought to identify major pathologic conditions within the head and neck that previously had been undiagnosed, such as benign and malignant conditions of the upper aerodigestive system, chronic ear disease, or severe hearing loss.

METHODS

This study was carried out over an 11-day period in March, June, and July of 1977 by seven otolaryngology attending physicans and residents and three audiologists from Newark Eye and Ear Infirmary, UMDNJ-New Jersey College of Medicine, Newark. The patient population of three of New Jersey's largest psychiatric hospitals were chosen. A total of 740 patients from Marlboro Psychiatric Hospital were examined on March 7 to 12, 1977. From June 9 to 11, 1977, 1,019 patients from Ancora Psychiatric Hospital were examined. On July 23, 1977, 1,044 patients

from Trenton Psychiatric Hospital were examined.

ORGANIZATION AND PLANNING

Numerous problems were encountered in attempting to examine such a large number of patients in a relatively short period of time.

At Marlboro Psychiatric Hospital many unanticipated problems surfaced. Several administrative obstacles as well as poor patient preparation hampered the efficiency of the examining team, so much so that six full days were required to examine only 740 patients. Major obstacles were encountered in the following areas: patient flow; incomplete data sheets; and cerumen impaction.

Patient flow. The most difficult problem was coordinating the transportation and flow of the patients to and from the examining area. At each hospital, patients are housed in many separate buildings. In some instances, the hospital staff used buses and vans to transport patients between buildings. At other times, groups were marched between buildings; also, human caravans marched through underground tunnels connecting the various buildings.

Incomplete data sheets. A sample data sheet is shown in Table 1. Prior to each patient's examination at the hospital,

^{*}From Newark Eye and Ear Infirmary, UMDNJ-New Jersey Medical School, Newark. Correspondence may be addressed to Dr. Han, Newark Eye and Ear Infirmary, 15 South 19th Street, Newark, NJ 07103.

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						External ear and canal
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						se (septum, airway, obstruction, sinuses)
		•				Cavity (lip, teeth, tongue, floor of mouth, tonsils)
						arynx (naso-, oro-, hypopharynx)
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						<u>e</u>
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the hospital staff was requested to complete the sheet as well as to list diagnoses and medications. This appeared to be an overwhelming task for this group of state employees who were unable to complete the necessary information as requested.

Cerumen impaction. An incredible number of patients were found to have complete bilateral cerumen impaction. Most of the time lost at Marlboro Psychiatric Hospital was spent trying to spoon cerumen or to irrigate the ears so that the tympanic membranes could be examined and accurate audiograms could be obtained.

Following this inefficient experience, a protocol was established that attempted to correct the initial problems. Screening forms were sent to the institutions several weeks in advance of our intended visit and the necessary data was listed by the staff at each patient's ward or unit.

Each patient was examined by the institution's physicians and cerumen impactions were identified and daily treatment was begun with cerumenolytic agents or periodic irrigations.

In addition, the dimensions and locations of the examining rooms were specified in advance. The actual examining room had to be quite large so that it easily and comfortably could accommodate seven examining otolaryngologists, examining units and instruments, and patients.

As a result of these changes, patient flow was much

improved. Examinations proceeded much more efficiently. Hospital staff performed admirably and was indispensable in coordinating patient flow into the examining room, into the audiological screening area, out of the examining room, and back to residence sites.

PATIENT POPULATION CHARACTERISTICS

The majority of the 2,803 patients were chronic institutionalized state mental patients. Many were severely retarded or severely emotionally disturbed and had little contact with individuals outside their institution. A number of the patients had been hospitalized for 20 years or longer.

Another subgroup represented a somewhat transient group who were institutionalized for a relatively short period of time for such offenses as drug or alcohol abuse or criminal behavior. By far, the great majority of patients was easy to examine and, for the most part, was very cooperative. Some did not permit irrigation of their ears or removal of cerumen which they may have interpreted as a hostile or threatening action. The most commonly refused examination was indirect examination of the larynx and nasopharynx; this was expected since this examination requires much cooperation by the patient as well as some discomfort by pulling out the tongue and inserting the necessary mirror into the pharynx. In addition, some degree of controlled respiration is required

TABLE 2 Psychiatric Diagnoses

Unknown

Schizophrenia, chronic, undifferentiated type

Organic brain syndrome

Alcohol or drug related

Mental retardation

Neurosis

Schizophrenia (unspecified)

Manic depressive

Schizophrenia, catatonic

Psychosis

Not indicated

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TABLE 3	
Psychotropic Medications	
Navane®	
Mellaril®	
Prolixin®	
Trilafon®	-
Vivactil®	
Thorazine®	
Lithium®	
Haldol®	
Stelazine [®]	
Serentil®	
Laxadane®	
Elavil®	
Unknown	

TABLE 4		
Abnormalities Discovered		
Immediate Followup Care Recommended		190 (8%)
Suspected malignancies	103 (4.3%)	
Chronic ear disease	27 (1.0%)	
(Mastoid x-rays recommended)		
Active sinus disease	12 (0.5%)	
(i.e. mucopurulent discharge,	` ,	
sinus x-rays recommended)		
Lesions requiring observation	36 (1.5%)	
(i.e. vocal cord polyps, benign tumors)	,	
Septal surgery recommended for severe and complete		
nasal airway obstruction	70 (3%)	
Severe gingivitis, periodontitis,	(,	
gingival hyperplasia, or multiple		
dental caries (immediate attention recommended)	238 (10%)	
Failed audiometric screening	200 (1010)	630 (26%)
Complete audio recommended, i.e. speech	428 (18%)	000 (2070)
Hearing aid evaluation recommended	202 (8%)	
riedring and evaluation recommended	202 (070)	

on the part of the patient and cooperation in this regard at times proved difficult.

Note: Some patients had multiple abnormalities

A very small group of patients was overtly hostile or violent. However, this group was exceedingly small. These individuals were encountered on a rather sporadic basis; they would not permit any part of the examination and, at times, had to be restrained forcibly. However, it should be emphasized that this happened rarely; the number of patients who fit into this category was less than 10.

The recorded diagnoses of these patients included all forms of psychiatric illness from profound retardation to the criminally insane. The most commonly listed diagnoses are recorded in Table 2.

Only the primary diagnosis was recorded, but many patients have multiple psychiatric diagnoses. Most patients were receiving medication during their institutionalization and at the time of their examination. Medications are listed in Table 3

DETAILS OF THE PHYSICAL EXAMINATION

Complete head and neck examinations were performed, including examination of the cranial nerves (other than olfactory). Details of the examination are as follows:

- A. Eye examination: Extraocular muscle function and pupils.
- B. Ear: External ears for any cutaneous lesions, external canal for cerumen or foreign bodies, tympanic membranes, and tuning fork testing (when permitted).
- C. Nose: Nasal septum, airway obstruction, polyps or masses, and clinical evidence of sinus disease.

- D. Oral cavity: Lips, teeth, tongue, floor of mouth, dentition, and tonsils.
- F. Pharynx: Oropharynx, hypopharynx, and nasopharynx.
 - G. Larynx: Epiglottis, false cords, and true cords.
- H. Neck: Detailed palpation for adenopathy, masses, or tenderness.
 - I. Face: Cutaneous lesions, benign or malignant.

DETAILS OF THE AUDIOMETRIC SCREENING

Audiometric screening consisted of air and bone pure tone threshold measurement and impedance audiometry. The air and bone pure tone thresholds were measured when possible and recorded at frequencies of 500 cps (cycles per second), 1,000 cps, 2,000 cps, 4,000 cps, and 8,000 cps. The audiometers used were Maico MA-20, calibrated pre- and posttesting (ANSI 1969).

All tested patients underwent impedance audiometry consisting of tympanometry, measurement of static compliance, and, where indicated, contralateral stapedial reflex testing. Two types of impedance devices were used: the Madson VO-73 and the Grayson Stadler 17-20B. All patients initially underwent pure tone testing. When responses were inconsistent or if the patient did not respond intelligently an attempt was made to elicit the stapedial reflex. Measurement of this reflex does not require any voluntary response or cooperation by the patient.

RESULTS AND CONCLUSIONS

Head and neck examinations yielded clinical information

TABLE 5 Total Patients Examined

Normal examinations 942 (39%)
Incomplete examinations 565 (23.4%)
Incomplete because of indirect laryngoscopy 532 (22%)
Incomplete because of other, i.e., ear, nasal 33 (1.4%)
Refused or uncooperative 199 (8%)

that is somewhat easier to tabulate and document objectively (Table 4). Patients with suspected malignancies, in most cases, were referred to local consultants of that institution for treatment. The results of that evaluation and treatment are not available for analysis. Similarly, patients with severe dental or periodontal conditions were treated by local dentists and oral surgeons at each institution.

The actual group of patients who were impossible to examine, in fact, was quite small (Table 5). Ordinarily, when presented with a psychiatric patient, full examination should be possible. This group of patients should not represent any unusual management problems in terms of personality or behavior. Only 8 percent of the institutionalized patients evaluated in this study actually refused any examination whatsoever.

As mentioned previously, our initial goal was to identify patients who were severely hearing-impaired who may have been institutionalized because of a communicative handicap when, in reality, no psychiatric condition existed.

Although 20 percent of the patients examined failed the

audiometric screening, most were due to poor patient cooperation or a mild to moderate hearing impairment. A careful analysis of the data sheets revealed no patients who appeared so severely hearing impaired that this alone accounted for their hospitalization. This analysis does not include those patients with severe psychotic conditions who were bedridden, catatonic, and unresponsive to any outside stimuli.

Because of the unique nature of this patient population, we expected to find a substantial number of cases of previously undiagnosed pathology such as occult head and neck malignancies, chronic ear disease, or severe hearing loss. We felt that this group of institutionalized individuals might represent a large pool of otolaryngologic problems. Perhaps patients with severe hearing impairments had been institutionalized simply because of a communicative handicap when in reality no psychiatric condition existed.

In actuality, the general health of this large group of patients was found to be remarkably sound. A few major undiagnosed problems were found but certainly no gross areas of neglect were identified. Tuberculosis travels without restrictions...



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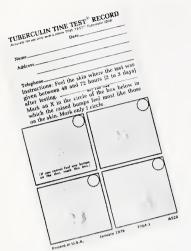
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CASE REPORT

Ureteral Obstruction Complicating Urethropexy

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We report two cases of ureteral obstruction that occurred during a Marshall-Marchetti-Krantz urethropexy. In both cases, the obstruction resulted from inadvertent placement of a supporting suture through the ureterovesical junction.

uprapubic vesicourethral suspension is a relatively simple procedure. The results are satisfactory in the large majority of patients. Complications, which are relatively few in number and minor in nature, include postoperative retention, osteitis pubis, and urinary tract infection. An unusual complication is ureteral obstruction. This report discusses two cases of ureteral obstruction and discusses its mechanism in order to heighten our awareness of the possibility of this complication.

CASE REPORT 1

A 45-year-old female was admitted with a three-year history of stress incontinence. She denied all other urinary symptoms. Her past history included a hysterectomy for fibroids several years earlier.

The day following admission, a Marshall-Marchetti-Krantz procedure was performed on the patient. The procedure was described as uneventful. The patient's Foley catheter was removed on the fourth postoperative day; she was able to void well. The next day the patient began to complain of right flank pain. An intravenous pyelogram disclosed a partial obstruction of the right ureter at the level of the vesicoureteral junction (Figure 1).

The next day, cystoscopy revealed that the ureteral orifices were located within the bladder neck. Using clockface anatomy, the left ureteral orifice was located at 5 o'clock and the right ureteral orifice was displaced upward to the 11-

o'clock position. A suture was found that extended through the bladder neck and into the right ureteral orifice. This caused upward displacement of the orifice and secondary obstruction. The suture was severed through a resectoscope sheath using a Collins knife. The orifice returned to its normal position. The patient's pain resolved and she was discharged approximately two days later. An intravenous pyelogram performed approximately one month after discharge revealed a normal right kidney without signs of obstruction (Figure 2).

CASE REPORT 2

A 50-year-old female was admitted to the hospital for elective correction of stress incontinence. The day after admission the patient underwent a Marshall-Marchetti-Krantz operation, which was described as uneventful. On the second postoperative day, her temperature rose to 103° and she complained of left flank pain. Intravenous cephalothin sodium (Keflin®) was administered, but her fever and pain persisted. An intravenous pyelogram revealed delay in function with diffuse enlargement of the left kidney (Figure 3). Cystoscopy revealed an extremely distorted trigone on the left side.

Exploration of the vesicoureteral junction uncovered a suture constricting its intramural portion. A uretero-

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Figure 1—A partial obstruction of the right ureter at the level of the vesicoureteral junction.

neocystostomy was performed. Postoperatively, the patient did well and was discharged from the hospital ten days later.

DISCUSSION

The Marshall-Marchetti-Krantz procedure is an excellent means of correcting stress incontinence. The success rate is high and the complication rate is low. Even when complications do occur, they usually are of a minor nature such as postoperative retention, osteitis pubis, and bleeding from a torn varix. Although serious complications are rare, they are not unheard of. Ureteral obstruction created during this procedure has been reported before.¹

The mechanism of the obstruction was the inadvertent suturing of the ureterovesical junction with the superior stitches of the repair. Complications of this nature clearly are the result of technical error. The simplicity of the procedure can entrap the surgeon into neglecting good surgical technique. Sutures will not be placed incorrectly if adequate dissection and exposure are performed. Aids to this include: the use of a 30 cc balloon, a No. 24 French Foley catheter to facilitate recognition of both the bladder neck and the urethra, and the upward displacement of the anterior vaginal wall by placement of two of the surgeon's fingers in the vagina. Awareness of this complication should encourage proper surgical technique.



Figure 2—A normal right kidney without signs of obstruction.



Figure 3—Diffuse enlargement of the left kidney.

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THE ELECTROCARDIOGRAM

The Syndrome of the Long Q-T Interval

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Primary Q-T prolongation in the ECG is seen in a number of unrelated cardiac and noncardiac conditions. Prompt identification of this abnormality is important because it is a marker of enhanced vulnerability to ventricular fibrillation and sudden death. This review deals with the etiology, differential diagnosis, and management of the syndrome of the long Q-T interval.

easurement of the Q-T interval of the electrocardiogram (ECG) includes the duration of ventricular excitation, the QRS complex, as well as repolarization which begins immediately after excitation of individual cardiac cells and extends throughout the ST-T deflection. Theoretically, the Q-T interval is a surface manifestation of the duration of ventricular recovery, a phenomenon that is influenced by a variety of physiologic and pathologic states. The former include heart rate, age, sex, body surface area, exercise, metabolic rate, nutritional state, and autonomic nervous system stimuli.1 The most important of these, heart rate, is inversely related to the Q-T interval, and several formulas have been derived to offer a Q-T interval corrected for heart rate, the Q-Tc.2.3 Accurate measurement of the Q-T interval is difficult unless multiple, simultaneous leads are used since the exact onset of QRS and termination of the T-wave may not be visible in a single lead. Accordingly, when multiple, simultaneous leads are used the earliest appearance of QRS and the longest T-wave probably represent the actual Q-T interval. Other difficulties in measurement include tachycardia or prolonged Q-T intervals where the T-wave may be superimposed on the subsequent P-wave, T-waves of low amplitude or slow conduction velocity whose end is indeterminate, and T-waves adjoining prominent U-waves, a common configuration when the Q-T interval is prolonged. Despite these limitations, measurement of the Q-T interval provides a clinically useful, but nonspecific, guide to a number of unrelated pathological states.

Abnormal shortening of the Q-T interval is relatively uncommon; it occurs primarily in hypercalcemia and with digitalis administration. Prolonged Q-T intervals frequently are seen "secondary" to QRS abnormalities such as hypertrophy, intraventricular conduction defects, and certain forms of preexcitation, whereas "primary" Q-T prolongation occurs in a large number of heterogeneous conditions that involve drugs, electrolyte disorders, myocardial diseases, central nervous system derangements, congenital syndromes, and such miscellaneous situations as heavy metal poisoning, sudden infant death syndrome (SIDS), hypothermia, and the use of liquid-protein diets.

Identification of a prolonged Q-T interval of whatever cause is important because it is a marker of increased disparity of repolarization and enhanced vulnerability to ventricular fibrillation (VF). This association supports the contention that a prolonged Q-T interval is a nonspecific, but useful, predictor of sudden death due to ventricular fibrillation. A common harbinger of ventricular fibrillation in patients with long Q-T intervals is an atypical ventricular tachycardia (AVT) often referred to as torsade de pointes. Atypical ventricular tachycardia is characterized by undulating, pleomorphic QRS complexes whose polarity is altered irregularly, rapid deterioration to ventricular fibrillation,

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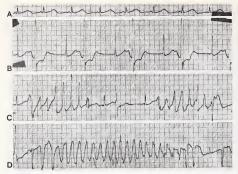


Figure 1—Strips A and B were obtained several hours apart in a 54-year-old man with thiazide-related hypokalemia; there is a basic sinus rhythm with a long Q-U interval and an ectopic ventricular bigeminy. Strips C and D are a continuous recording taken later in the same patient representing torsade de pointes or atypical ventricular tachycardia.

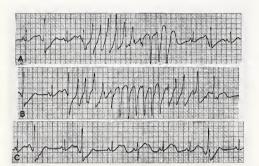


Figure 2—Strips A, B, and C are a continuous recording in a patient with quinidine toxicity. There is a long Q-U interval as well as classical atypical ventricular tachycardia.

and disastrous results with conventional antiarrhythmic agents that tend to prolong the Q-T interval even further (Figure 1).

This review is concerned with those disorders that give rise to primary prolongation of the Q-T interval including their etiology, differential diagnosis, and management.

DRUGS

A variety of cardiac and noncardiac drugs causes O-T prolongation and enhanced susceptibility to ventricular fibrillation even in therapeutic doses. Atypical ventricular tachycardia and ventricular fibrillation owing to O-T prolongation originally were described in quinidine administration,6 but since have been linked with procainamide,7 disopyramide, 8.9 amiodarone, 9 and rarely with lidocaine® and prenylamine (Figure 2).10 These antiarrhythmic agents tend to prolong the action potential of ventricular cells by decreasing the slope of phase three, an effect manifested in the surface ECG as a prolonged Q-T interval.11 Psychotropic drugs, primarily thioridazine and other phenothiazines, amitriptyline, and haloperidol also have been casually related to Q-T prolongation, atypical ventricular tachycardia, and ventricular fibrillation. The electrophysiologic effects of the phenothiazines are similar to quinidine and seem to be dose related. 10,12

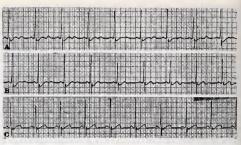


Figure 3—Strips A, B, and C are a continuous recording in a young diabetic man admitted in ketoacidosis with hypokalemia. This tracing was obtained during an infusion of potassium. Note the initial Q-U prolongation with progressive shortening of this interval and disappearance of the U-wave as the electrolytic imbalance is corrected.

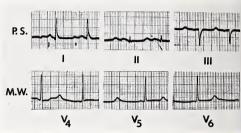


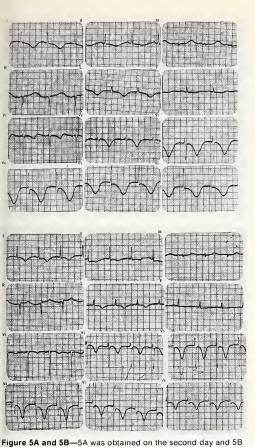
Figure 4—Q-T prolongation due to iatrogenic hypocalcemia (inadvertent parathyroidectomy) in two patients. Note that Q-T is prolonged owing to a lengthened ST segment.

ELECTROLYTE IMBALANCE

Hypokalemia, hypocalcemia, and hypomagnesemia all have been implicated in the syndrome of the long Q-T interval. In hypokalemia and hypomagnesemia, Q-T prolongation is related to a broad TU complex. Decreased extracellular concentrations of these ions increase the duration of the ventricular action potential by lengthening phase three (Figure 3). Hypocalcemia, on the other hand, causes a long Q-T interval characterized by a T-wave of normal duration and a lengthened ST segment. Decreased extracellular calcium prolongs phase two of the ventricular action potential rather than phase three accounting for the difference in the appearance of the surface ECG (Figure 4). Property of the surface ECG (Figure 4).

HEART DISEASE

Prolongation of Q-T has been reported in many cardiac disorders including ischemic heart disease, primary myocardiopathies, myocarditis, and mitral valve prolapse. Transient Q-T prolongation is seen in typical and atypical angina as well as acute myocardial infarction. In the latter, Doroghazi and Childers showed that Q-T was prolonged maximally by the second day and returned to control values by the end of the second week (Figure 5). These investigators hypothesized that local hypothermia, norepinephrine release or deprivation, conduction delay, or extracellular hypocalcemia were responsible for this finding. Constant prolongation of Q-T following myocardial infarction may be a predictor of sudden death. Prolongation of Q-T associated with atypical ventricular tachycardia and ventricular fibrillation also has been described in alcoholic and other



on the tenth day of an acute, nontransmural myocardial infarction in a 61-year-old woman. There is transient, marked Q-T prolongation.

cardiomyopathies, 14 various forms of myocarditis, 10 and mitral valve prolapse. 15

CNS DISORDERS

Burch, Myers, and Abildskov first described Q-T prolongation in 17 patients with cerebrovascular accidents; 7 had cerebral hemorrhages, 7 had subarachnoid hemorrhages, and 3 had unclassified strokes. ¹⁶ This finding has been described in a number of neurological insults in adults as well as children. ^{17,18} Employing computerized tomography, Yamour et al. found that Q-T prolongation most often was associated with hemorrhage in the vicinity of area 13 on the orbital surface of the frontal lobe. These investigators suggested that the ECG abnormality was caused by alterations in autonomic tone transmitted by fibers in the orbitofrontal area to the heart via the stellate ganglia (Figure 6).¹⁷

CONGENITAL Q-T PROLONGATION

Jervell and Lange-Nielson described a syndrome of Q-T prolongation, deaf-mutism, syncope, and sudden death due to ventricular fibrillation in a Norwegian family in 1957.¹⁹ The pattern of inheritance was interpreted as autosomal recessive with pleiotropic expression of the gene. Subsequent-

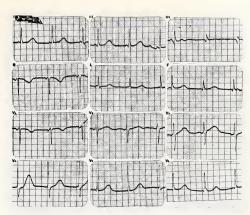


Figure 6—This ECG shows prominent Q-T prolongation in a 71year-old man who succumbed to an intracerebral hemorrhage. Autopsy showed no heart disease.

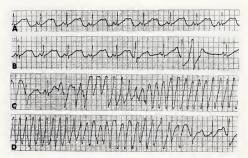


Figure 7—Strips A through D are a continuous recording in a 31-year-old man plagued by syncopal episodes since infancy. Audiometric testing was normal. Note the long Q-T interval and atypical ventricular tachycardia consistent with the Romano-Ward syndrome.

ly, Romano and Ward reported a similar syndrome in the absence of deaf-mutism that was inherited as an autosomal dominant (Figure 7).^{20,21} In eight patients who died suddenly of ventricular tachycardia due to these hereditary disorders, James found a focal neuritis and neural degeneration throughout the conduction system possibly related to adrenergic neural asymmetry.²²

MISCELLANEOUS CONSIDERATION

Q-T prolongation with atypical ventricular tachycardia and ventricular fibrillation has been reported in many unrelated problems including hypothermia, heavy metal poisoning, sudden infant death syndrome, chronic obstructive lung disease, and patients subjected to liquid-protein diets. Q-T prolongation together with bradycardia, conduction defects, and elevation of the J-point known as the Osborn sign or camel-hump deformity have been reported in accidental hypothermia, ²³ as well as induced hypothermic cardioplegia prior to coronary artery bypass grafting, ²⁴ and in the local hypothermia of myocardial infarction (Figure 8). ¹³ Goldsmith and From described an instance of atypical ventricular tachycardia associated with Q-T prolongation due to arsenic intoxication. They postulated that this heavy

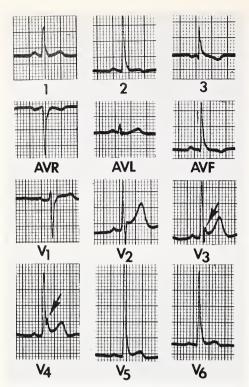


Figure 8—This ECG was taken in a 38-year-old alcoholic man with accidental hypothermia. There is Q-T prolongation and prominent J-point elevations (arrows) constituting the Osborn sign of hypothermia.

metal was caused by adrenergic neuropathy with the development of asynchronous repolarization due to sympathetic imbalances.25 Maron et al. studied parents and siblings of infants who died of sudden infant death syndrome. They found that 26 percent of infants with sudden infant death syndrome had at least one parent with Q-T prolongation, and 39 percent had at least one sibling with the same anomaly. These investigators suggested an autosomal dominant pattern of transmission and a possible relationship between sudden infant death syndrome, adrenergic stimulation, and Q-T prolongation.²⁶ Tirlapur et al. showed that marked hypoxemia in patients with chronic obstructive lung disease produced Q-T prolongation and arrhythmias; interestingly, oxygen therapy reversed these changes but failed to shorten Q-T in smokers.27 Q-T prolongation, atypical ventricular tachycardia, and ventricular fibrillation are seen in subjects on liquid-protein-modified-fast diets where they apparently are unrelated to electrolyte deficiencies, drugs, or genetic factors. These alterations have been attributed to myocarditis, abnormalities of the hypothalamic-pituitary axis, and to sinus node ganglionitis and neuritis; yet, the precise cause of these ECG changes remains enigmatic.²⁸⁻³¹

TREATMENT

Management of the syndrome of the long Q-T interval nearly always is indicated because of its common association with atypical ventricular tachycardia and rapid deterioration to ventricular fibrillation. Clearly, initial efforts should be directed toward detection of the underlying cause and its prompt correction or withdrawal. In those situations where a precise etiology cannot be established (congenital or sudden infant death syndrome), quinidine-like drugs must be avoided because they aggravate the underlying electrophysiologic fault of prolonged and nonuniform repolarization. Attempts to shorten Q-T by digitalization or by increasing heart rate with pacing or isoproterenol have received mixed reviews, 9.10 Similar results have followed interventions designed to correct the alleged, underlying dysautonomia, such as stellate ganglionectomy and the use of drugs like propranolol, guanethidine, diphenylhydantoin, and phenobarbital. 22.32

SUMMARY

The Q-T interval of the ECG is a measure of the duration of ventricular excitation and recovery that is influenced by a variety of physiologic and pathologic states. Q-T prolongation is a marker of increased disparity of repolarization and enhanced vulnerability to ventricular fibrillation and sudden death. The cardiac and noncardiac conditions associated with Q-T prolongation are discussed in terms of etiology, pathophysiology, and differential features. Management of this syndrome includes prompt identification of the offending agent and its correction or withdrawal, avoidance of the use of conventional antiarrhythmic drugs that cause further Q-T prolongation, increasing heart rate by pacing or the use of cardioaccelerator drugs in an effort to shorten Q-T, and interventions designed to correct an underlying autonomic balance.

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CLINICAL NOTE

The Subclavian Vein Cannula for Vascular Access

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The results of hemodialysis in 16 consecutive patients with the Sorenson® subclavian vein cannula are reviewed. The technique of insertion, clinical application, and drawbacks of this relatively new procedure are shown.

mmediate access for hemodialysis poses a problem to the surgeon. While the standard Teflon® silastic arteriovenous shunt can be employed easily, it has many drawbacks. A major consideration is the sacrifice of vessels for future permanent access. Percutaneous peritoneal dialysis always is not possible and often not adequate. The femoral vein catheter has been associated with high rates of infectious and thrombotic complications. In 1979, Udall et al. described a technique of a subclavian vein cannula for vascular access in 64 patients and over 1,000 dialyses. We would like to report on 16 patients successfully treated in a dialysis unit of a community hospital with the Sorenson® subclavian vein cannula for a variety of indications.

METHODS

A Sorenson® subclavian vein dialysis cannula is inserted into the right or left subclavian vein (Figure 1) under aseptic conditions at bedside. Our method is a modification of the technique described by Udall et al.

The skin is prepped with povidone iodine and draped with sterile towels. Anesthesia is provided by 1 percent lidocaine subcutaneous infiltration. An 8-inch, 16-gauge intracath catheter (Figure 2) is inserted into the subclavian vein via the intracalvicular route. With the intracath in place, the 0.0038-gauge Seldinger guide wire (Figure 3) is passed through the intracath, and the intracath then is removed. Next, the subcutaneous tunnel is created (Figure 4) with a

mosquito hemostat and a No. 11 blade. The tunnel extends from the insertion site to an incision located 5 cm inferior to and lateral to the original. Care must be taken in order to assure a gentle curve for the Sorenson® cannula. An alpha loop is made with the guide wire and it is passed through the tunnel (Figure 4). The Sorenson® cannula is passed over the guide wire into the subclavian vein until the hub on the silastic extension is flush with the skin (Figure 5).

The cannula is anchored to the skin with a 3-0 silk suture placed into and around the hub. Two pieces of Op-Site® dressing are used to secure and to seal the cannula. One piece is reflected on itself under the silastic extension and a second piece is placed over the entire length of the tunnel and exposed cannula. Two thousand units of heparin (1000 unit/cc) are flushed into the straight arm of the cannula every eight hours. The cannula is not to be used for blood drawing, intravenous, or medications. The Op-Site® dressing is changed by the surgeon or by the dialysis nurses.

The cannula is changed every two weeks over a guide wire unless malfunction occurs or it is thought to be infected. It is removed immediately if a permanent access becomes available or if dialysis no longer is necessary.

Sterile caps, masks, gowns, and gloves are recommended.

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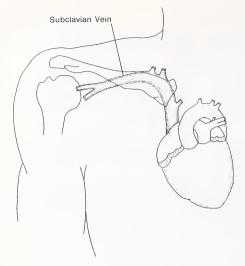


Figure 1-Illustration of the subclavian vein.

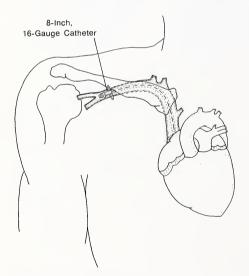


Figure 2—Illustration of an 8-inch, 16-gauge catheter inserted into the subclavian vein.

RESULTS

The Sorenson® subclavian dialysis cannula was employed in 16 consecutive patients who ranged in age from 31 to 87 years. These included 12 males and 4 females. Nine of the patients were white and 7 were black.

The 16 patients underwent 119 dialysis treatments. Twenty-seven cannula insertions were required. These included the original insertion and subsequent changes. The length of time with the cannula in place ranged from two days to six weeks.

Two patients were treated with one dialysis each; one from barbituate overdose that required hemoperfusion and the

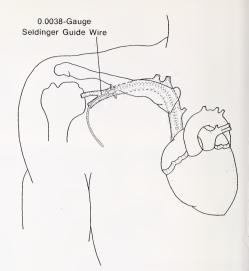


Figure 3—Illustration of the 0 0038-gauge Seldinger guide wire passed through the intracath.

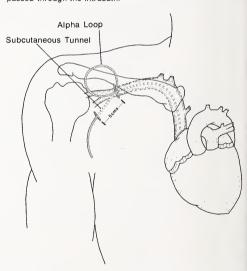


Figure 4—Illustration of the subcutaneous tunnel and alpha loop.

other for an acetominophen overdose. Five patients were dialyzed in this fashion while an A-V fistula matured or until a Gortex® graft was suitable for use. Three patients, with obstructive uropathy, returned to normal renal function after an urologic procedure. The remaining six patients were dialyzed for acute renal failure with complicated medical problems.

There were two cases of proven infection requiring removal of the cannula. Diphtheriods and *Staphylococcus aureus* were cultured in these cases.

The problem of cannula occlusion was encountered in four patients. This required reinsertion of a new cannula over a guide wire. All these were early in the series and the problem

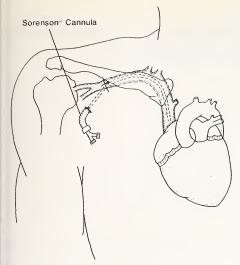


Figure 5—Illustration of the Sorenson® cannula; care must be aken to assure a gentle curve.

was corrected by attention to the flushing technique with dilute heparin solution.

DISCUSSION

This experience with the Sorenson® subclavian cannula shows it to be a worthwhile alternative to the external A-V shunt. We feel it can be used in all of the acute clinical settings when an external shunt is required.

The advantages of the Sorenson® cannula are:

1. Time saving. This cannula can be inserted at bedside with the minimum of assistance. It does not utilize the operating room and its personnel. This is an important consideration with the manpower shortage and financial problems facing most community hospitals. The cannula can be in place and used in 30 minutes.

- 2. Safety and mobility. In the hands of surgeons experienced in trauma and hyperalimentation, the placement of a central venous line is associated with a low complication rate. In this group of patients, the complications of pneumothorax, hemothorax, and air embolus were not encountered. The patient has no restrictions on ambulation as compared to the Shaldon® femoral catheter. Two patients have been dialyzed on an outpatient basis. A family member was taught by dialysis personnel to care for the cannula at home. We recommend this practice be restricted to very reliable patients.
- 3. Vessels preserved. Patients who require long-term dialysis become access problems. This technique does not sacrifice an artery and a vein. The small scars left in the subclavian area hardly are noticeable after removal of the Sorenson® cannula. Dialysis with the single-needle machine has been adequate with this technique.

There are significant infection and cannula occlusion rates. We feel that meticulous care must be given to the handling and care of the cannula. Our impression from experience shows that fewer infectious complications and cannula occlusions occur as the surgeons and dialysis nurses become familiar with this technique. Emphasis is placed on the proper technique for flushing the cannula.

SUMMARY

The Sorenson® cannula was used in 16 patients in a community hospital for renal hemodialysis and hemoperfusion of drug overdoses. This technique gave good results and obviated the need for the standard external A-V shunt used in these acute clinical settings.

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MEDICAL HISTORY

New Jersey or Massachusetts?*

MORRIS H. SAFFRON, M.D., Newark

ld canards die hard. At the last meeting of the American Medical Association [1981], in San Francisco, the delegations from Connecticut, New Hampshire, Vermont, Rhode Island, and Maine introduced a resolution correctly honoring the Massachusetts Medical Society on its approaching 200th anniversary but added the erroneous bit of information that it was "the oldest state medical society with an uninterrupted existence." The chauvinists from New England again have tried to denigrate the honorable distinction of the Medical Society of New Jersey as the "oldest of still existing medical societies." They point to two interruptions in meetings to substantiate their position; in the following, I shall present relevant facts to an impartial audience for its decision, indicating the historical events that brought about these two periods of inactivity.

PRE-REVOLUTIONARY

With formal courses in anatomy being given under the auspices of King's College in New York (1764) and with the medical school in Philadelphia already in operation (1765), the physicians of the agrarian, sparsely settled province of New Jersey decided that they too would make a concerted effort to improve their professional knowledge and skills. Accordingly, on July 23, 1766, dedicated practitioners met in a day-long session at New Brunswick. They soon adopted Institutions of Association and a Constitution for the Medical Society and proposed a table of fees to which all legitimate physicians would adhere. During the decade before the outbreak of hostilities the Society met regularly, and in 1772, after years of determined resistance on the part of quacks and cultists, managed to push through the legislature the most stringent of colonial laws relating to the licensure of physicians and the practice of ethical medicine. Not only did this fundamental law serve as a prototype for other colonies, including Massachusetts, but it laid the basis for our present-day system of state board examiners. An attempt to have the Society incorporated failed of approval in the pre-Revolutionary atmosphere of hostility existing between the Royal Governor and the rebellious Assembly.

We now come to the period of the Revolution. It is well known that while Massachusetts had supplied most of the

firebrands who pushed the colonies inexorably into a confrontation with the mother country, once the British had moved their ships from Boston harbor, not a single battle of any significance was fought on her sacred soil. In contrast, New Jersey, soon to be known as the "Cockpit of the Revolution," quartered the Continental Army for two winters and saw at least one-third of all major clashes with the enemy. While loyalist bands and British patrols were crisscrossing the province, burning, looting, and sequestering livestock, while 70 of her surgeons were serving in the Continental Army, and while the few elderly physicians had all they could do to care for the civilian population, how could regular meetings possibly be held? New Jersey is proud of the part her medical men played in the Revolution. These included seven presidents of the Society, one of whom, John Cochran, eventually became Surgeon-General of the Continental Army, in succession to the traitorous Bostonian. Benjamin Church, and the hapless Philadelphians, John Morgan and William Shippen. Cochran implored valiantly and effectively to enhance the status of the medical men under his command, finally securing for them many of the privileges and benefits previously offered only to line officers.

Now it should be noted carefully that even before the battle of Yorktown had decided the outcome of the war, a notice of September 8, 1781, called members of the Society to attend a reorganizational meeting on October 5. This was followed by an official meeting on November 5, a good three weeks before the Massachusetts Society held its first official meeting on November 28. From then on the New Jersey Society met regularly twice a year with a "northern" meeting at Princeton and a "southern" meeting at Burlington.

POST-REVOLUTIONARY

In 1790, the New Jersey legislature finally passed an act incorporating 51 physicians as a body "politic and corporate" with a life span of 25 years, and the legal existence of

^{*}Reprinted with permission, Saffron MH: New Jersey or Massachusetts? *JAMA*: 245:2031-2032, 1981. Copyright, American Medical Association.

he New Jersey Medical Society as an entity thus was ensured t least for that period of time. There were the usual eferences to a stated annual meeting, requirements relating o frequency of meetings, but no other restrictions—the only roviso being that a quorum of 15 members be present for he enactment of official business.

We now come to the other hiatus in the Society's history, he one on which the Massachusetts legalists rest their case. n post-Revolutionary New Jersey there had been the usual hift to the cities that follows all upheavals in society. By 790, approximately five-sixths of all the physicians of New ersey were practicing in the northeastern portion of the tate, yet the traditionalists of the State Society insisted that he seminannual meetings be held only in Princeton or 3urlington, thus causing busy practitioners of Essex and djacent counties to make the long trek of hundreds of miles wer difficult roads. Obviously this situation led to combaints from northern members and could not continue ndefinitely.

Capitalizing on the discontent of a majority of the Society nembers was Paul Michaux, a dynamic, well-trained physician from the town of Elizabeth, who had studied in London Inder Percival Pott. For a short period Michaux gave ectures at his private medical school, but in 1791 he founded in independent group known as the Eastern District Medical Society. Himself a member of the State Society, Michaux had to intention of encroaching on its judicial prerogatives, but he great success of his instructive lectures at Newark and Elizabeth dealt a severe blow to the attendance at meetings of he older group. Unable to attract the quorum required, the conservatives bemoaned "the declining state of the Society"

but did nothing to correct it until 1795, when they finally accepted the realities of the status quo and proposed an amalgamation with the northern group. From then on members of both societies met informally together solely for professional advancement, but not for a moment did the New Jersey Medical Society give up a separate legal existence.

By 1807, this temporary alliance of convenience had come to an end when the New Jersey Medical Society reconvened in New Brunswick on June 23. Still unable to attract the required quorum, the Society sent its deliberations to the legislature for approval, giving reasons for the long period of official inactivity and asking for relief. The sympathetic lawmakers not only concurred in the position the Society had taken, but immediately reduced the number required for a quorum to nine. Thus, they confirmed the uninterrupted legal existence of the Society, which until recent times had never been questioned.

Within a few years the formation of district societies with the right to send delegates to the annual meeting put an end to the undemocratic procedures that helped to precipitate the "Interregnum" of 1795 to 1807.

We hope to have proved to the satisfaction of our readers that the Medical Society of New Jersey is, indeed, the oldest state society in our country with a continuous existence under law. Floreat ad multos annos!

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THERAPEUTIC DRUG INFORMATION

New Drugs: Part Four

This information is compiled by the International Pharmaceutic Drug Information Center (IDIC), affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Services of Long Island University.*

n response to numerous requests concerning new drugs marketed in 1981, the following information is provided in a four-part series; this article is the concluding ection.

VOXALACTAM DISODIUM (MOXAM®: ELI LILLY AND COMPANY)

Moxalactam is the first semisynthetic oxa-beta-lactam intibiotic to be marketed in the United States. It is conidered a third-generation cephalosporin. Moxalactam is ndicated for the parenteral therapy of lower respiratory nfections (including pneumonia), urinary tract infections, ntraabdominal infections, septicemia, and bone and joint nfections caused by susceptible strains of gram-positive and gram-negative infections. It is indicated for the therapy of nixed aerobic-anaerobic infections. Moxalactam is contraindicated in patients who have exhibited a prior allergic reaction to it. Moxalactam should be used with extreme caution in patients allergic to penicillin or other sephalosporins. Safety in pregnancy and nursing mothers has not been established.

Adverse reactions reported with moxalactam therapy include eosinophilia, alterations in vitamin K-dependent clotting function (decreased prothrombin, increased bleeding time, and thrombocytopenia), reversible leukopenia, pain at the site of injection, phlebitis, rash, fever, positive Coombs' test, diarrhea, and elevations in hepatic enzymes (SGOT, SGPT, and/or alkaline phophatase).

Disulfiram-like reactions have been reported when alcohol was ingested following the administration of moxalactam. This reaction has been reported to occur as late as 48 hours after the last dose of the agent.

Dosage is dependent upon the site of infection, the patient's condition, and the patient's renal function. The usual intramuscular or intravenous dosage range in adults is 2 to 6 g daily in divided doses for 5 to 14 days. Refer to the package insert for specific dosage recommendations.

TEMAZEPAM (RESTORIL®: SANDOZ)

Temazepam is a benzodiazepine derivative indicated for the relief of insomnia associated with the complaints of difficulty in falling asleep, frequent nocturnal awakenings, and/or early morning awakenings. Temazepam is contraindicated in pregnancy, and should be used cautiously in women of childbearing age who might become pregnant while receiving it. It should be administered with caution in severely depressed patients or in those patients with evidence of latent depression. Safety in nursing mothers as well as safety and effectiveness in children below the age of 18 years have not been established.

The most common adverse reactions reported were drowsiness, dizziness, and lethargy. Less frequently noted adverse reactions include confusion, euphoria, relaxed feeling, weakness, anorexia, and diarrhea. Consult the package insert for a complete listing of less frequent adverse effects.

Caution should be observed when administering temazepam with other agents having hypnotic properties or CNS-depressant effects due to potential additive effects.

The usual adult dose is 30 mg before retiring although in some patients 15 mg be sufficient. However, in elderly and/or debilitated patients the initial dosage should 15 mg.

ATENOLOL (TENORMIN ®: STUART)

Atenolol is a "relatively" beta₁-selective (cardioselective) blocking agent indicated for the treatment of hypertension. It should be used cautiously in patients with compensated

^{*}The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians. The Director of the Center is Jack M. Rosenberg, Pharm. D., Ph.D.; the Consultant is Walter A. Modell, M.D. This month's column was prepared by J.M. Rosenberg, Pharm. D., Ph.D., H.L. Kirschenbaum, Pharm. D., Ghazala Saleem, M. Pharm., M.S., Jayne Ritz, R.Ph., and Frances P. Martino, R.Ph. Correspondence may be addressed to the International Pharmaceutic Drug Information Center, 81 DeKalb Avenue, Brooklyn, NY 11201.

congestive heart failure, diabetes mellitus (as beta-blockers may mask the symptomatology of hypoglycemia), thyrotoxicosis (as certain symptoms of hyperthyroidism may be blocked), and renal impairment. As with other beta-blockers, atenolol is best avoided in patients with bronchospastic diseases. Safety in pregnant and nursing mothers as well as safety and effectiveness in children have not been established. Atenolol is contraindicated in patients with sinus bradycardia, heart block greater than first degree, cardiogenic shock, and overt (uncompensated) congestive heart failure.

Most adverse reactions reported to date have been mild and transient. Adverse effects reported include: bradycardia, cold extremities, (postural) hypotension, dizziness, tiredness, fatigue, depression, and dyspnea. Refer to the package insert for a complete listing of adverse reactions.

Additive hypotensive effects may be observed when catecholamine-depleting drugs (e.g. reserpine) are administered concomitantly. It becomes necessary to discontinue therapy in patients receiving atenolol and clonidine concurrently; atenolol should be discontinued several days before the gradual withdrawal of clonidine.

The usual adult dosage is 50 mg daily either alone or concurrently with a diuretic, which may be increased to 100 mg daily. Dosage must be reduced in patients with renal impairment.

VERAPAMIL (CALAN®: SEARLE; ISOPTIN: KNOLL)

Verapamil is a member of a new class of pharmacologic agents referred to as slow-channel calcium inhibitors or antagonists. It is indicated for the treatment of supraventricular tachycardias including rapid conversion to sinus rhythm of paroxysmal supraventricular tachycardias (including Wolff-Parkinson-White syndrome) and temporary control of rapid ventricular rate in atrial flutter or atrial fibrillation. As a small percentage of patients may develop life-threatening adverse effects, the initial use of verapamil should be in a setting equipped with monitoring and resuscitation facilities, as well as D.C.-cardioversion capability.

Verapamil is contraindicated in severe hypotension, cardiogenic shock, second or third degree AV block, sick sinus syndrome (unless the patient has an artificial ventricular pacemaker), severe congestive heart failure not related to a supraventricular tachycardia which may be treated

by this medication, and patients receiving intravenous betaadrenergic blockers. Safe use in pregnancy has not been established. As it is unknown whether this drug is excreted in breast milk, its use is not recommended in nursing mothers.

The most frequently reported adverse reactions include: rapid ventricular response in atrial flutter or fibrillation, hypotension, bradycardia, asystole, severe tachycardia, dizziness, headache, nausea, and abdominal discomfort. For a listing of less frequent adverse reactions, consult the package insert.

Patients receiving verapamil should not receive intravenous beta-blockers as serious adverse effects have been reported. Although serious adverse effects have not been reported with concomitant oral beta-blockers or digitalis glycosides the possibility should be considered and patients closely monitored. As little is known about the effects of concomitant disopyramide therapy, it should not be administered within 48 hours before or 24 hours after verapamil administration.

Verapamil should be administered as a slow intravenous injection over at least 2 minutes. The usual adult dosage is 5 to 10 mg (0.075 to 0.15 mg/kg) with a repeat dosage of 10 mg (0.15 mg/kg) 30 minutes later if required. Older patients should receive this dose over at least 3 minutes to minimize the risk of untoward effects. Repeated dosage in patients with hepatic and renal function is not recommended. For complete dosage information consult the package insert.

SUCRALFATE (CARAFATE®: MARION)

Sucralfate is a complex of sulfated sucrose and aluminum hydroxide indicated for the short-term (up to eight weeks) treatment of duodenal ulcer. Safety in pregnant patients and nursing mothers as well as safety and effectiveness in children have not been established.

The most frequently reported adverse effect was constipation. Other adverse effects noted include diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

Antacids should not be administered within 30 minutes before or after sucralfate.

The usual adult dosage is 1 gm four times a day one hour before each meal and at bedtime for four to eight weeks unless healing has been demonstrated by x-ray or endoscopic examination.

WHAT IS YOUR OPINION?*

The Building Block of Judgment

DIRCK L. BRENDLINGER, M.D., Marlton**

t a recent meeting of the Committee on Publication, I witnessed an exchange between members supporting concepts advanced in an article submitted for publication and a reviewer of the article who did not support the article's concepts. I remember thinking that the value of the subject matter in dispute was enhanced by the fact of its disputation—allowing a view of things from more than a single vantage point.

The Journal articles based on valid tenets and written by authors with healthy egos may advance a perspective that tends to denigrate divergent views actively or by the disdaining of their existence.

And so it was with the article in question. When the reviewer took very specific exception to major assertions in the article, the article became more useful to me.

One must assume physicians read *The Journal* articles to burnish their skills. Therefore, it is essential that articles differentiate carefully between opinion and fact.

In the ideal circumstance, people would be blessed with perfect rationality, rendering them proof from the vagaries and vicissitudes of opinion. Thus, were the Houyhnhnms blessed—those noble horses discovered by Gulliver in the tale by Jonathan Swift.

According to Swift, "Their grand maxim is to cultivate reason and to be wholly governed by it. Neither is reason among them a point problematical as with us, where men can argue with plausibility on both sides of the question: but strikes you with immediate conviction, as the deeds must do where it is not mingled, obscured, or discolored by passion and interest."

The Houyhnhnms simply could not understand the meaning of the word opinion. Reason taught them to affirm or deny only where they were certain and, beyond that knowledge, they could do neither. Thus, controversy, dispute, and argument were evils unknown among the Houyhnhnms.

Alas, we men and women of the art and science of medicine are not so unblemished in our use of reason. In fact, we seem to revel in the wranglings so incomprehensible to the Houyhnhnms. According to Aristotle, however, the object of science is the essential and the necessary; the object of

opinion is the accidental and the contingent. Why do physicians who perceive themselves as dealing with knowledge, embroil themselves in controversy over what is not?

An answer may be found in the distinction between knowledge and opinion. It is possible to hold an opinion and doubt at the same time, but not to know and doubt. The opposite of an opinion may reasonably be offered, but the opposite of something known must be in error or be false.

John Locke said "The mind has two faculties conversant about truth and falsehood: first, knowledge, whereby it certainly perceives and is undoubtedly satisfied of the agreement or disagreement of any ideas; secondly, judgment, which is the putting ideas together or separating them from one another in the mind when their certain agreement or disagreement is not perceived, but presumed to be so.... To the faculty of judgment, then, belongs belief, assent, or opinion, which is the admitting or receiving of any proposition for true, upon arguments or proofs that are found to persuade us to receive it as true, without certain knowledge that it is so."

Since it is the acquisition of information that can be used to formulate sound judgments that occupy physicians more often than the recognition of easily identified truths, it is Locke's second faculty that defines most aptly the role of *The Journal*.

In order to improve the soundness of our judgments, we must expose ourselves to a spectrum of opinion. Unless one holds no opinion whatever on a given subject, the acceptance of any opinion over the one held admits error in one's previous assessment of the matter at hand.

Montaigne asked, "How often do we alter our opinions? What I hold and believe today, I hold and believe with my whole belief. I could not embrace nor preserve any truth with greater assurance than I do this: but has it not befallen me,

^{*}We encourage our readers to write opinions on topics of interest. Send your opinion to Editor, *The Journal*, Two Princess Road, Lawrenceville, NJ 08648.

^{**}Dr. Brendlinger is a member of the Committee on Publication of *The Journal*.

not only once but a thousand times, and every day, to have embraced some other thing with the same instruments, and in the same condition, which I have since judged to be false? A man must, at least, become wise at his own expense; if I have often found myself betrayed under this color, if my touch prove ordinarily false and my balance unequal and unjust, what assurance can I now have more than at other times? We ought to remember that whatever we receive into the understanding we often receive things that are false; and that it is by the same instruments that so often give themselves a lie, and are so often deceived."

How can *The Journal* best contribute to creating the optimal situation under which opinion can be presented, defended, and assessed by the reader? In the usual format, the reader is presented with material generated originally by the author or in summary of the findings of others with a set of conclusions. Articles submitted for publication that merely confirm recognized truths would be of little use to readers; for that reason these articles would have little chance for publication and those articles that do appear, fall under the broad category of opinion.

Pascal, however, makes this point. There are two ways in which we think. The more natural way is "that of the understanding, for one should only agree to demonstrate a truth; but the more usual is that of the will; for all men are nearly always led to believe, not by proof, but by inclination."

It seems reasonable to assume that this flaw of reason may creep into the authorship of the articles we publish. I submit, then, that the optimal way to present information on any topic is to do so not in the sterile security of an uncontested article, but to present such material, whenever feasible, in the context of controversy. Such a format is unlikely to alter the article written by an author on either side of any question. Yet, it allows the matter to be exposed to the detergent of dissenting opinion and we might find the truth perceived more clearly.

It seems that it is less important whether this is done by requesting submissions from authors known to be on opposite sides of an issue or whether editorial exception is taken to an opinion offered in an article. In either case, it seems that an author on either side of an issue should not attempt to avoid identification with his own stance.

The editor of *The Journal* has ruled that anonymous articles or editorials are not acceptable, a position with which I wholly agree. I would like to see that same policy applied to reviews submitted by the editorial board of articles presented for publication. It is not enough merely to hold an opinion different from that presented in a reviewed article, it is necessary to defend the difference with explanation. It is hard to see why such a defense of opinion should need anonymity.

Clearly, this proposal to present *The Journal* material in a format of controversy is not applicable to every article submitted. When it is applicable, however, it is my opinion that its use would be most beneficial, given the need for supportable opinion as the building block for sound judgment.

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DOCTORS' NOTEBOOK

Trustees' Minutes July 18, 1982

A regular meeting of the Board of Trustees was held on Sunday, July 18, 1982, at the Executive Offices in Lawrenceville. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows.

Report of the President . . .

- (1) Diagnosis Related Groups ... Noticed that despite the fact the DRG system has not proved itself and that members of the Commissioner's Physician Advisory Committee are trying to analyze the results from six of the original hospitals, Joanne E. Finley, M.D., M.P.H., is working to have members of Congress adopt DRG as national policy.
- (2) Radiologic Technology Board of Examiners . . . Accepted the names of Drs. Campo, Garrison, and Goracci to be nominated for the Radiologic Technology Board of Examiners.

Report of the Executive Director . . .

- (1) MSNJ 1982 Paid Memberships ... Noted an increase in the total paid membership for April, May, and June. Noted that there is an increase in new duespaying members and an increase in duesdelinquent members as compared to previous years.
- (2) Subordinated Loan Deductibility ... Noted the decision on deductibility of subordinated loan funds still is pending; the case is not expected to come to trial till October.
- (3) The State Board of Medical Examiners...
- (a) Communication for Deputy Attorney General Harper... Supplied Douglas J. Harper, Deputy Attorney General in charge of the Division of Professional Boards, with information concerning the areas perceived by MSNJ as improper practices; a response still is pending.
- Note: MSNJ has questioned the propriety of a system that allows a state agency to act as prosecutor and judge in a given case; proposed legislation emphasizing the need for the office of the Attorney General to develop a fair system of due process for defendant professionals.
- (b) Communication from Acting Attorney General Greelish ... Received a

letter from Mr. Greelish stating a subcommittee of the State Board of Medical Examiners was formed to pursue efforts to publish a newsletter and to provide all licensees with a manual of the rules, regulations, and policies of the State Board.

- (c) Communication from Edwin Albano, M.D. ... Received a communication from Edwin Albano, M.D., President of the State Board of Medical Examiners, advising that the State Board of Medical Examiners endorsed the concept of a state-wide CME and management program at the UMDNJ-New Jersey School of Osteopathic Medicine, to educate and rehabilitate dated or impaired physicians in problems related to prescriptions, but that the State Board of Medical Examiners is not an official sponsor or direct participant of the program. Noted that if other groups (i.e. State Department of Health, MSNJ Committee on Drug and Alcohol Abuse, New Jersey Association of Osteopathic Physicians and Surgeons) form a similar program, the State Board would consider such a program as a possible resource in selecting components of disciplinary orders in appropriate cases.
- (4) Reassessment of Legislative Program and Establishment of Priorities . . . Approved the following recommendation:

That the President and Chairman of the Board of Trustees appoint a committee to reassess the Society's legislative program, including the category of opinions. The membership of the committee will include representatives from the Executive Committee and the Council on Legislation.

- (5) AMA 5th National Conference on the Impaired Physician . . . Authorized the attendance of Doctor Canavan and two members of the Committee on Impaired Physicians to attend the AMA Conference on the Impaired Physician as the representatives of the Medical Society of New Jersey.
- (6) Tel-Med Programs ... Selected Doctor Messey (or an appropriate member of the Committee on Medical Education or Council on Public Relations of his choice) to review the tapes and recordings used in the Ted-Med program sponsored by the New Jersey Hospital Association.

Committee on Publication . . . Approved the following recommendation and re-

ferred it to the Committee on Revision of Constitution and Bylaws:

That the Committee on Publication be expanded to include three additional members appointed by the President.

Candidates for Appointment to the State Board of Medical Examiners . . . Agreed to screen the list of 22 physicians who are candidates for recommendation for appointments on the State Board of Medical Examiners.

Ad Hoc Committee on Drug and Alcohol Abuse . . .

Schedule II Drug Prescription Program ... Approved the following resolution:

That the Board of Trustees inform Governor Kean that the Medical Society of New Jersey supports Senate Bill 227.

Note: The purpose of S-227 is to establish formally a New Jersey Drug Abuse Advisory Council within the Department of Health and to repeal the Narcotic Advisory Council within the Department of Human Services. The Committee believes this legislation is necessary to prepare and maintain an intelligent and effective system for managing and preventing substance abuse in New Jersey.

New Business . . .

(1) Standards for Certified Midwife Practice ... Voted to approve the following proposed amendments:

13:35-9.1 Midwife and Certified Nurse Midwife Practice Rule

- (a) A midwife licensed by the Board of Medical Examiners, pursuant to the provisions of N.J.S.A. 45:10-1 et seq. alone, shall be considered a lay midwife and shall perform only the functions expressly set forth in the statute; that is, attend a woman in childbirth without the use of any medications or surgical procedures.
- (b) Definition: A Certified Nurse Midwife shall mean a registered professional nurse licensed in New Jersey who, by virtue of added knowledge and skill gained through an organized program of study and clinical experience, manages the care of essentially normal newborns at the time of delivery and essentially normal women during the antepartum, intrapartum, and postpartum periods, including family planning as expressly limited and set forth below.
- (c) A Certified Nurse Midwife shall register as such with the Board to discharge those responsibilities set forth in this subchapter.
- (d) The Certified Nurse Midwife shall not work alone in an individual or independent practice but shall function within a health care system which provides for consultation,

collaborative management, and referral with a physician licensed to practice medicine and surgery in the state of New Jersey (hereinafter referred to as "the physician"). A Certified Nurse Midwife holding that title shall, during the effective period of such registration only, use the title "Certified Nurse Midwife" and the abbreviation "C.N.M." in any professional context in this state.

13:35-9.2 Qualifications

(a) A Certified Nurse Midwife shall demonstrate the following qualifications in order to be registered by the Board 1. proof of at least 18 years of age; 2. diploma of a legally chartered school of nurse midwifery approved by the American College of Nurse Midwives; 3. certification by the American College of Nurse Midwives; 4. current registration as a professional nurse in the state of New Jersey; and 5. a minimum of two years of obstetrical clinical experience in a licensed health care facility or comparable experience satisfactory to the Board.

(b) The requirements of (a) above notwithstanding, a midwife certified by the American College of Nurse Midwives and licensed as a midwife in the state of New Jersey and licensed as a registered professional nurse in the state of New Jersey on the effective date of this rule shall be eligible to register as a Certified Nurse Midwife.

13:35-9.3 Minimal Conditions of Practice

(a) The C.N.M. shall establish written agreement(s) with one or more licensed physicians in the state of New Jersey who practice obstetrics and who have hospital privileges. The agreement shall include a written protocol setting forth: 1. criteria for ineligibility for patient care solely by the C.N.M., which shall exclude patients defined as high-risk in N.J.A.C. 13:35-9.4(e) and (f) and 9.5; 2. standing orders for approved laboratory tests; 3. standing orders for approved medications which may be dispensed by the C.N.M. which shall include identification, quantity, dosage, and indications for use. Other than parenteral local anesthesia, no controlled dangerous substances may be used outside of a licensed hospital, except upon prescription of the physician; 4. periodic conference for review of patient records as needed; and 5. availability of the physician (or designated qualified substitute physician who practices obstetrics and is responsible for backup care) for consultation and emergency assistance or medical management when needed.

(b) The C.N.M. shall file with the Board a notice listing the name and address of the affiliated physician and the effective date of the agreement at the time of application for registration with the Board. In the event of a change of physician(s), the C.N.M. promptly shall notify the Board.

(c) The lay midwife, functioning within the more limited scope of such practice as set forth in N.J.S.A. 45:10-1 et seq. shall file with the Board a notice listing the name and address of a physician(s) who has agreed to serve as backup for the purposes set forth in N.J.S.A. 45:10-8 and 9.

13:35-9.4 Minimal Standards of C.N.M. and Lay Midwife Practice During Prenatal Stages

- (a) A lay midwife shall not manage the care of high-risk patients under any circumstances.
 - (b) The C.N.M. shall take the patient's

history; perform a physical examination; order laboratory tests; recommend nonprescription medication as necessary; dispense medications in accordance with the standing orders of the physician; and maintain written patient records of findings and evaluation. Presigned prescriptions should not be utilized.

(c) A C.N.M. may participate in the management of high-risk patients only under the circumstances set forth in N.J.A.C. 13:35-9.5, and also may perform all services within the scope of practice of a registered professional nurse acting at the direction and under the supervision of a licensed physician.

(d) Except as permitted in N.J.A.C. 13:35-9.5, the C.N.M. and the lay midwife shall promptly refer the patient to the physician at such time as any abnormal condition appears.

(e) The criteria establishing high-risk include, but are not limited to, the following: 1, demographic indices; i. chronological age under 16 in primigravida at the time of last menstrual period; ii. chronological age of 35 or over in primigravida at the time of last menstrual period; and iii. chronological age of 40 and over in multigravida at the time of last menstrual period.

Notwithstanding the provisions of (e)li, ii, and iii, the C.N.M. may participate in the management of patients in those categories with an obstetrician under the following circumstances: (A) the patient shall be examined by a licensed obstetrician during the first trimester or second visit and again during the third trimester to confirm satisfactory status under C.N.M. management; (B) a licensed obstetrician is on the premises and available for consultation when these patients are examined during prenatal management; and (C) delivery shall take place in a licensed hospital having a licensed obstetrician on the premises 24 hours/day.

2. Documented problems in maternal medical history: i. cardiovascular: acute and/or chronic hypertension defined as diastolic over 90 on two separate occasions; congenital and/or acquired heart disease; history of thrombophlebitis within one year of pregnancy or two episodes; history of pulmonary emboli; ii. urinary system: impaired renal function, chronic or acute renal disease, or severe urinary tract infection refractory to treatment; iii. psychoneurological epilepsy or any other seizure disorder; alcoholism, drug addiction, and/or methadone maintenance; previous psychotic episode; use of any psychotropic drug for medical disorders; iv. endocrine: diabetes mellitus and/or gestational diabetes; other endocrine abnormalities; v. respiratory: asthmatics under therapy; moderately severe chronic bronchitis: chronic emphysema; past history of chronic TB; other significant pulmonary diseases; vi. other systems: bleeding disorders and/or hemolytic disease including leukemia or Hodgkin's disease; orthopedic problems precluding a normal spontaneous delivery including kyphoscoliosis; and previous malignancy other than skin.

3. Documented problems in maternal obstetrical history: i. estimated date of confinement less than 12 months from date of previous delivery; ii. previous retained placenta; iii. previous Rh sensitization; iv. parity of six or more; v. the use of fertility drugs such as Pergonal® and/or Clomid®; vi. previous C-section or other surgery involving the uterine

wall; vii. previous placenta abruptio and/or significant bleeding in this pregnancy; viii. previous significant postpartum hemorrhage; and ix. two or more poor outcomes of pregnancy.

4. Documented problems in previous infants: i. two or more infants larger than approximately 10 pounds (4,500 gm); and ii. one infant with lethal or life-threatening congenital anomalies.

5. Findings on physical examination of pregnant patient: i. significant obesity defined as 20 percent above standard for height and weight according to standard chart; ii. poor nutritional status; iii. clinical evidence of significant uterine myomata, malformation of the genitourinary tract, abdominal or adnexal mass; iv. cardiac diastolic murmur, systolic murmur grade III, and/or combined with cardiac enlargement; v. hydramnios or oligohydramnios; and vi. any other significant deviations from the normal.

6. Findings as a result of laboratory or radiologic studies: i. hematocrit less than 31; ii. Papanicolaou smear—Class III (or cytology equivalent) or greater, dependent on medical evaluation; iii. evidence of active tuberculosis; iv. SS hemoglobin or any

hemoglobinopathies.

(f) Conditions requiring antepartal referral to the physician shall include but are not limited to the following: 1. multiple gestation confirmed by sonogram; 2, evidence of fetal chromosome or other congenital disorder confirmed by amniocentesis; 3. evidence of intrauterine growth retardation; 4. development of thrombophlebitis; 5, symptoms of gestational diabetes affirmed by abnormal glucose tolerance curve; 6. abnormal weight gain (at term) less than 12 pounds or greater than 50 pounds; 7. nonvertex presentation at onset of labor; 8. laboratory evidence of sensitization in Rh negative women; 9. postdatism defined as 42 weeks or 294 days gestation; 10. any recent history or visible evidence of genital herpes; 11, no prenatal care before 24th week of pregnancy; and 12. development of symptoms of preeclampsia.

13:35-9.5 Management by a Physician-C.N.M. Team for High-risk Patients

(a) Nothwithstanding any of the limitations set forth in N.J.A.C. 13:35-9.4, a C.N.M. may render nurse-midwife services to high-risk patients as part of a physician-C.N.M. team under the following circumstances: 1. the high-risk patient shall receive all scheduled prenatal care in: i. a professional office having a full-time physician on the premises; or ii. in a licensed hospital clinic. Labor and delivery shall take place in a licensed hospital; 2. a licensed physician(s) has assumed responsibility for the patient; 3. the physician shall personally examine all known high-risk patients initially; 4, all patients determined to be high-risk on a subsequent visit shall be examined and their charts reviewed by the physician at the time when such assessment is made; 5, the physician shall review the chart of a known high-risk patient on the occasion of each subsequent visit and shall delegate to the C.N.M. such care as deemed appropriate; and 6. prior to the high-risk patient's discharge from each scheduled visit, the physician shall review and sign the chart.

13:35-9.6 Intrapartum Management

(a) Both the lay midwife and the C.N.M.

nay manage the labor and delivery of the normal patient at any location including the natient's home, provided that the licensee has ascertained the availability of a physician on hall

(b) At any location the lay midwife may not use any prescription drug medications and may not perform surgical procedures but shall contact the physician for assumption of patient care for anything other than a normal

pontaneous delivery.

(c) The C.N.M. may administer medicaions according to the protocol, may perform an episiotomy and repair it, and may use local or pudendal block anesthesia provided that abor and delivery take place in a licensed health care facility which may include a pirthing center located within the vicinity of a hospital or within a reasonable distance hereof, which: I. has an obstetricianzynecologist licensed in the state of New lersey who is designated as responsible for backup care and, pursuant to an established protocol, is available on call; and 2. which facility is subject to filed rules of the Department of Health providing for appropriate plant, staffing, equipment requirements, reguar inspection, transportation services, and backup services agreement with a licensed

(d) For a home delivery, the C.N.M. may use a local anesthetic only and may perform

and repair an episiotomy.

(e) The C.N.M. shall refer all second, third, and/or fourth degree lacerations for repair by the licensed physician.

(f) The lay midwife and C.N.M. may evaluate and manage the third (placental) and fourth (postpartum) stages of labor. However, they immediately shall report any sign of hemorrhage or retention of placenta to a licensed physician; except in an emergency, neither the lay midwife nor the C.N.M. shall deliver a retained placenta manually.

(g) The C.N.M. and the lay midwife shall perform immediate screening of the newborn, initiate immediate procedures to resuscitate the newborn as necessary; report to a licensed physician all deviations from the normal which occur; record and report the birth.

(h) Labor and delivery shall not be managed by the C.N.M. or by the lay midwife in any abnormal circumstances including, but not limited to the following: 1. evidence of fetal distress indicated by significant meconium staining or abnormal heart tones such as severe irregularity, a rate below 100 or above 200 beats per minutes not corrected by position change; 2. development of hypertension defined as a rise of 30 points of systolic and/or 15 points of diastolic blood pressure and/or elevated blood pressure of 150/90 or the development of signs of preeclampsia; 3. prolapse of cord; 4. intrapartum and/or postpartum blood loss greater than 500 cc estimated; 5. evidence of active infection; 6. development of other severe medical/surgical problems; and 7. any condition requiring more than 12 hours postpartum observation.

(i) Labor and delivery of patients in the following abnormal circumstances may be managed by the C.N.M. if the physician is present in the hospital's labor and delivery suite and has determined that the delivery is likely to involve no greater risk than a normal spontaneous delivery: 1. premature labor at less than 37th week of gestation; 2. assessment of infant at less than approximate.

ly 5 lbs. 8 ozs. (2,500 gm) or more than approximately 8 lbs. 12 ozs. (4,000 gm); 3. premature rupture of membranes more than 12 hours before onset of regular contractions; 4. failure to progress in labor using the Friedman curve manifested as follows: i. first stage: lack of steady progress in dilation and/or descent after 12 hours in the primipara and six hours in the multipara; ii. second stage: more than two hours, after which consultation with physician must occur; and iii. third stage: greater than one hour; and 5. soft tissue problems such as severe vulvar varicosities or marked edema of cervix.

13:35-9.7 Postpartum and Other Care

(a) Conditions requiring infant transfer to a licensed hospital shall include, but not be limited to, the following: 1. Apgar score less than seven at five minutes; 2. signs of pre- or postmaturity; 3. low weight defined as less than approximately 4 lbs. 10 ozs. (2,200 gm). (Moreover, if the infant weighs less than approximately 5 lbs. 8 ozs. (2,500 gm), a pediatrician immediately shall be consulted); 4. respiratory problems such as severe grunting, retraction, or rate above 60 at age of four hours; 5. jaundice, defined as bilirubin of greater than 10 mg/100 ml in the first 36 hours of life; 6. extreme color variation; 7. persistent hypothermia, defined as less than 97° Fahrenheit, taken rectally after two hours of life; 8. exaggerated tremors; 9. major congenital anomaly; and 10. any condition requiring more than 12 hours observation post-

(b) The C.N.M. may provide postpartum care and, notwithstanding the provisions of any other section of this subchapter, family planning, counseling, and health screening.

(c) Within a physician's office or a licensed health care facility having a licensed physician on the premises during the procedure, the C.N.M. may insert and remove intrauterine devices (I.U.D.s.).

(d) Within a physician's office or a licensed health care facility employing a full-time licensed physician on the premises during all hours that the location is open to patients, the C.N.M. may dispense medication as required, only in conjunction with family planning programs, in accordance with written protocol

(e) A C.N.M. may dispense family planning medication in a physician's office or a licensed health care facility having less than full-time physician presence, but only upon prior approval by the Board of the program. Board review shall include the following factors (with the goal of providing the greatest access to services consistent with the public health, safety and welfare, and law in effect at the time): 1. numbers of physicians and C.N.M.s employed; 2. written protocol and degree of supervision; and 3. location and number of patient visits/day/C.N.M.

(2) Same-Day Surgery List... Directed that a copy of a tentative same-day surgery list be supplied to the appropriate specialty societies for a report on the sections affecting their specialty and requested response prior to the next meeting.

(3) Appointment of Committee on Medicaid ... Agreed to accept nominations from county medical societies for members of the Committee on Medicaid—now a Standing Committee; received suggestions from Doctor Slobodien.

(4) New Jersey Chapter of American Association of Medical Assistants ... Directed a letter of appreciation be sent to the New Jersey Chapter of American Association of Medical Assistants for their voluntary services during MSNJ's 1982 Annual Meeting.

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UMDNJ Notes

Stanley S. Bergen, Jr., M.D., President

An injury to ligaments and tendons often destines the victim to long periods of pain and to surgical procedures that usually are only partially corrective. Consider the athlete whose career is shortened by this common circumstance or the person in an automobile accident who faces a long convalescence and restricted use of a limb for the rest of his or her life.

Such misfortunes need not be considered hopeless any longer. Researchers at the University of Medicine and Dentistry of New Jersey are pioneering the reconstruction of human ligaments and tendons while earning a patent for themselves and UMDNJ on the procedure's primary component.

The component, developed in the Orthopaedic Research Laboratories of UMDNJ-New Jersey Medical School, Newark, is a carbon fiber implant coated with an absorbable polymer. In clinical studies to date, there has not been a single failure associated with the implant in the approximately 100 American patients who have had the surgical procedure.

For those with injuries to legs, this success has meant the renewed ability to walk with full mobility and the absence of pain. Such results particularly are encouraging since tissue grafts and synthetic replacements often used in orthopaedic surgery only partially have been effective in achieving long-term repair.

In the surgical procedure, the carbon strand-which is comprised of 10,000 hair-thin fibers protected from fraying by a coating of polylactic acid—is woven in and around the injured tissue to connect and reinforce the damaged section. The three-foot-long implant, with surgical needles at each end, acts as a scaffold-of-sorts and is strong and elastic enough to duplicate the tissue's function. The coating then is absorbed by the body after approximately two weeks and replaced by cells that gradually encase the strand. Approximately nine months after implantation, a new ligament or tendon is formed, permanently reinforced by the fiber. Consider skin healing over a cut and you have a good idea of the regenerative process.

Dr. Andrew Weiss, Director of Orthopaedic Surgery at UMDNJ-New Jersey Medical School, has performed the surgery in New Jersey, Texas, and Cali-

fornia, where he shared the technique with other surgeons. Currently, about 20 physicians around the world are performing the new procedure.

Awarded a patent for the carbon fiber development were Dr. Weiss, Harold Alexander, Ph.D., Director of the New Jersey Medical School's Orthopaedic Research Laboratories and originator of the new implant, John R. Parsons, Ph.D., and Irving Strauchler, M.D., both Assistant Professors of Orthopaedic Surgery at the medical school. The patent was assigned to the University and licensed to Hexcel Medical of California, a San Francisco-based orthopaedic products manufacturer that will produce, market, and sell the device upon final approval from the Food and Drug Administration.

UMDNJ also is indebted to the William Lightfoot Schultz Foundation for the funds it provided for the research, which were donated through the Foundation of UMDNJ.

MSNJ Auxiliary

Linda B. Hirsch, President

The MSNJ Auxiliary will hold its annual Fall Seminar on Monday, October 4, 1982, at MSNJ headquarters in Lawrenceville. Mrs. Gale Wayman is Seminar Chairman. The program will commence at 9:45 A.M. and will be followed by lunch at 1:00 P.M.

The theme of this year's seminar is "The Future of Medicine." Howard D. Slobodien, M.D., is the moderator, and will speak on "Changes in Medicine in the 1980s." Carla Neuschel, AMA lobbyist in Washington, DC, will offer "Medical News from Washington." Edward Cohen, Assistant Chancellor of Higher Education, will speak on "Medical Education in the 1980s." Karen Hopkins, Coordinator of Hospice for Mercer County Medical Center will speak on "Hospice Programs in the 1980s" and will present a film. There will be a speaker on the "Physicians' New Image in the 1980s." A question and answer period will follow the presentation

All physicians, auxiliary members, and executive secretaries of medical societies are cordially invited to attend the seminar.

Emergency Medical Care

The New Jersey Department of Health, in cooperation with other states

on the east coast, has signed an interstate agreement extending temporary reciprocity to emergency medical technicians (EMTs) and paramedics who are certified in one state but who are called upon temporarily to provide emergency medical care in another state.

Roy W. Nickels, Director of the New Jersey Office of Emergency Medical Services, noted that an informational mailing is being sent to all EMTs, paramedics, and ambulance squads in the state.

"In the past, no one really expected the EMTs or paramedics to stop treating a patient just because they crossed the state line," he said. "However, many EMTs and paramedics felt uncomfortable in going out-of-state with a patient, as they were not certified to provide care in another state."

"All along the Delaware River there are several areas of New Jersey which relate to out-of-state hospitals," Nickels said. "The agreement has helped clarify a very sensitive issue for squads in those areas."

Under the agreement, New Jersey paramedics transporting patients out-of-state will continue to receive medical guidance from the New Jersey-based mobile intensive care programs. In times of disaster, however, the EMTs and paramedics will follow the directives of the medical professional who is in charge at out-of-state disaster scenes.

Nickels explained that the agreement, developed by the states which belong to the Mid-Atlantic Emergency Medical Services Council, grew out of a common interstate problem.

Federal Compensation for Medical Services

The Federal Employees Compensation Act (FECA) provides payment for reasonable medical costs associated with diagnosis and treatment of civilian employees. A new fee schedule for specific services will be established this fall.

With the implementation of this system, the Office of Workers' Compensation Programs will require all nonhospital and nonpharmacy bills for medical services to be submitted on the standard AMA/HFCA billing form (HCFA 1500; AMA OP 407/408/409). These new forms are available from the United States Department of Labor, Office of Workers' Compensation Programs, 1515 Broadway, New York, NY 10036.

Medical Philately Joseph H. Kler, M.D.

ANESTHESIA

Since ancient times, all civilizations used various "stupefying" agents in the performance of surgery. Wine was the favorite anesthetic in performing circumcisions. Canabis indica was the favorite anesthetic agent of the early Chinese. Opium, mandragora, conium



Hyoscyamus Niger German Democratic Republic, 1981

maculatum, arborea, lactuca, daphne mezereum all had their day. Henbane seed derived from the Hyoscyamus (pictured in the stamp) was one of the early anesthetic agents. A sponge was soaked with the essence of this material and placed over the mouth and nose of the patient to produce a general anesthetic. At a later period, the henbane seed was roasted in a copper skillet; the fumes produced were considered as disinfecting and also as a chemical anesthetic agent. It remains for ether to be the first reasonably satisfactory agent for general anesthesia; ether gave surgery its first great stride along its path to modern surgery.

SURGICAL INSTRUMENTS

In early times, extracting teeth was performed by surgeons. The instruments



Tooth Extracting Instruments
German Democratic Republic, 1981

pictured in the stamp were used in the extraction of teeth during the 16th, 17th, and 18th centuries. The "doppelkelikan" was used to loosen the abscessed tooth. This was followed by the extraction of the tooth with tongs. The tongs also had a screw that was used to anchor the tongs to an adjacent tooth while extracting the abscessed tooth. The handspike "geissfussen" had hooks to loosen the teeth to be extracted and in the removal of fragments of teeth.

Dr. Breen Named President-Elect of Specialty Society

James Langhorne Breen, M.D., of Maplewood, has been named President-Elect of the American College of Obstetricians and Gynecologists for 1982-83. The ACOG represents nearly 23,000 professionals who provide health care for women.

Dr. Breen was graduated from Northwestern University Medical School, Chicago, in 1952. He obtained his postgraduate training in obstetrics and gynecology at Walter Reed Army Medical Center, Washington, D.C., from 1952 to 1958.

A member of our Essex County component, Dr. Breen is Chairman of the Department of Obstetrics and Gynecology at Saint Barnabas Medical Center, Livingston, and Clinical Professor of Obstetrics and Gynecology at Jefferson Medical Center, Philadelphia. Dr. Breen is a consultant with Monmouth Medical Center, Long Branch; John F. Kennedy Hospital, Edison; and Jersey Shore Medical Center, Neptune.

The list of Dr. Breen's affiliations is lengthy; it includes: The Academy of Medicine of New Jersey, the American Medical Association, the American College of Surgeons, the International Academy of Pathology, and the American Society of Cytology.

Dr. Breen's work within the American College of Obstetricians and Gynecologists shows active participation on all levels of the organization. For the past year he has been Vice-President of the College; from 1977 to 1980, he was Vice-Chairman of the Learning Resource Commission; and he chaired the Commission's Task Force on Gynecology from 1977 to 1980.

Doctor Breen has lectured extensively around the world; he is the author of almost 150 scientific papers, textbooks,

films, and exhibits relating to various aspects of his specialty. He also served with the Medico-Care Program in South Vietnam and Afghanistan; for his service in Vietnam, Dr. Breen received the American Medical Association's Meritorious Service Award in 1966.

Dr. Mousavi Honored

The American College of Physicians (ACP) announced that Mir M. Mousavi, M.D., of West Orange, has been elected to fellowship in the national medical specialty society. Dr. Mousavi, a member of our Essex County component, is a specialist in internal medicine, oncology, and hematology.

Born in 1944, Dr. Mousavi was graduated from Tabriz Medical School, Iran, in 1969. Dr. Mousavi is on the staff of the Clara Maass Medical Center, Belleville, St. James Hospital, Newark, and West Hudson Hospital, Kearny.

The ACP, founded in 1915, represents doctors of internal medicine and related specialists.

Dr. Barach Receives Fellowship

Richard L. Barach, M.D., a member of our Mercer County component, has been selected for a Fellowship in the American College of Radiology (ACR) in honor of his special contributions to the medical profession. The ACR is the professional medical society representing 18,000 physicians who specialize in the use of radiation and ultrasound to diagnose and treat human disease.

Dr. Barach earned a medical degree at Yale University School of Medicine in 1949. He is affiliated with the Medical Center at Princeton and the Carrier Foundation, Belle Mead. Dr. Barach is a member of the American Medical Association and a Diplomate of the American Board of Radiology.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Offices of MSNJ seeking information on possible opportunities for practice in

New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

- ANESTH ESIOLOGY—S. K. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Partnership or group. Available.
- CARDIOLOGY—Mohammad Riaz, M.D., 853 Avenue Z, Brooklyn, NY 11235. Khyber (Pakistan) 1971. Board eligible. Group or partnership. Available.

Narendra T. Agrawal, M.D., 502-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Also, general internal medicine. Board eligible. Associate, partner, hospital-based clinic. Available.

Madhusudhan T. Gupta, M.D., 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Also, general internal medicine. Board certified (IM). Solo, group, partnership. Available.

FAMILY MEDICINE—Asha Garg, M.D., 133 Kearny Ave., Apt. 17, Kearny, NJ 07032. NHLM Medical College (India) 1970. Residency, Available.

Deborah A. Beiter, M.D., 44 Waterford Way, Fairport, NY 14450. SUNY-Upstate 1976. Board certified. Group or partnership. Available.

Railton Leonard Green, M.D., 64 Martin Drive, Harrington Park, NJ 07640. University of Cape Town (South Africa) 1959. Partnership or group. Available.

Michael A. Kazakoff, M.D., 4216 Wilson Avenue, Montreal, Quebec, Canada H4A 279. McGill 1974. Board certified. Any type practice. Available.

Jeffrey P. Tannenbaum, M.D., 3 Brookhill Drive, Schenectady, NY 12309. Boston 1977. Board certified. Group or partnership. Available.

GASTROENTEROLOGY—Mathew K. Kandathil, M.D., 94 Village Lane, Branford, CT 06405. Grant (India) 1974. Also, general internal medicine. Board certified (IM), Group, partnership, associate. A vailable.

Muhammad A. Nyazee, M.D., 1650 Selwyn Avenue, Bronx, NY 10457. Also, genyral internal medicine. Board certified (IM). Solo/group practice, partnership, academic (gastroenterology). Available.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available.

- GENERAL PRACTICE—Samuel Saland, M.D., 125-F Galaxy, 7000 Boulevard East, Guttenberg, NJ 07093. Berne (Switzerland) 1934. Board certified (FP). Subspecialty, alcoholism (detoxification, treatment, rehabilitation). Full or part time, multispecialty group, associate, preferably in vicinity of Fort Lee or Guttenberg area. Available.
- INTERNAL MEDICINE—Harry N. Brandeis, M.D., Ten Overlook Rd., Apt. 51, Summit, NJ 07901. Bologna (Italy) 1979.

Board eligible. Group, partnership, solo. Available.

Narendra T. Agrawal, M.D., 503-5306 N. Cumberland, Chicago, IL 60656. Baroda (India) 1973. Subspecialty, cardiology. Board eligible. Associate, partner, hospitalbased clinic. Available.

Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Subspecialty, pulmonary medicine. Group or solo (hospital based). A vailable.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available.

Steven Fischkoff, M.D., 6792 Pyramid Way, Columbia, MD 21044. Pennsylvania 1976. Subspecialty, oncology. Board certified (both). Group or partnership. Available.

Frank Gentile, M.D., 2116 Trail 2, Apt. 9-K, Burlington, NC 27215. Bologna (Italy) 1973. Subspecialty, hematology and oncology. Solo or partnership. Available.

S. Srinivas, M.D., 7859 Riverdale Rd., Apt. 103, New Carrollton, MD 20784. Gandhi (India) 1973. Subspecialty, gastroenterology. Board certified. Solo, partnership, single-specialty group. Available.

Madhusudhan T. Gupta, M.D. 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Subspecialty, cardiology. Board certified. Solo, group, partnership. Available.

Nanjappa Ravi, M.D., Prel Gardens, Apt. ID, Orangeburg, NY 10962. India 1970. Board eligible. Solo, group, partnership, emergency room. Available.

Vinod Kanbilal Shah, 507 6th St., Brooklyn, NY 11215. MP Shah (India) 1975. Board eligible. Group, solo, partnership. Available.

Jae O. Park, M.D., 9542 W. Pickwick, Taylor, M1 481 80. Chonnam (Korea) 1969. Board eligible. Hospital based or group. Available.

Curtis A. Wushensky, M.D., 3437 Fifth Ave., Apt. 506, Pittsburgh, PA 15213. University of Pittsburgh 1979. Board eligible. Salaried, hospital, locum tenes, emergency room. Available.

Ellis R. Levin, M.D., 223 Pacific St., Apt. D, Santa Monica, CA 90405. Jefferson 1975. Subspecialty, endocrinology. Board certified. Group, associate, partnership. Available.

OBSTETRICS/GYNECOLOGY—Yvonne S. Thornton, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/fetal medicine. Board certified (both). Partnership or group (single specialty), Morris or Middlesex counties preferred. Available.

Ibrahim Beruti, M.D., 1236 Napoleon St., Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified. Solo. Available.

Gary S. Rosenberg, M.D., 245-20 Grand Central Parkway, Bellerose, NY 11426. SUNY-Downstate 1977. Board eligible. Group or partnership. Available.

Richard Malafy, M.D., 8716 East Spanish Barb. Trail, Scottsdale, AZ 85258. UMDNJ 1971. Board eligible. Any type practice. Available.

OPHTHALMOLOGY—Shearwood J. Mc-Clelland, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia Physicians and Surgeons 1974. Board certified. Partnership or group. Available January

Michael Hostovsky, M.D., 4100 West 36th St., Minneapolis, MN 55416. Hadassah (Israel) 1972. Also, neuro-ophthalmology. Board eligible. Single or multispecialty group. Available.

Jasvinder Singh, M.D., 500 Central Ave., Apt. 702, Union City, NJ 07087. Lady Hardinge (India) 1970. Board eligible. Partnership, group, HMO. Available.

OTOLARYNGOLOGY—Arnold I. Charow, M.D., 6 Country Club Drive, Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.)

PATHOLOGY—S.A. Hadi, M.D., 50 S. Chillicothe St., South Charleston, OH 45368. Gandhi Medical (India) 1964. Board certified (Anatomic). Group. Available.

PEDIATRICS—B. R. Prasad Achanti, M.D., #310, 11135-83 Ave., Edmonton, Alberta, Canada 6G-2C6, Guntur Medical (India) 1975. Board eligible. Available.

Jogesh Dugal, M.D., 135-17 Coolidge Ave., Kew Gardens, NY 11435. Lady Hardinge (India) 1970. Speclal interest, child development. Board eligible. Group or partnership. Available.

Suraiya I. Alvi, M.D., 1234A Birch St., Fort Dix, NJ 08640. Hyderabad (India) 1960. Board eligible. Group, partnership, multispecialty group. Available.

Allan Gideon Plaut, M.D., 265-02 74th Ave., Glen Oaks, NY 11004. SUNY-Downstate 1977. Board eligible. Multispecialty group, partnership, prepaid health plan. Available.

PULMONARY DISEASES—Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Also, general internal medicine. Group or solo (hospital based.) Available. Melvin Polkow, M.D. 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Also general internal medicine. Board certified (IM). Group, partnership, hospital based. Available.

K.J. Shah, M.D., 44-36 Kicham St., Elmhurst, NY 11373. G.S. Medical (India) 1976. Also, general internal medicine. Board certified (IM). Group or solo (hospital based). A vailable.

RADIOLOGY—Stephen Phillip Laufgraben, M.D., 19 Poplar Ave., Wheeling, WV 26003. University of Arkansas (1973) Board certified. Single-specialty group, hospital based, private. Available.

M. T. Centanni, M.D., Box 222, Bloomfield, NJ 07003. Bologna (Italy) 1970. Board certified. Group or hospital (full time), Available.

SURGERY, GENERAL-Robert C. Kahn,

M.D., 2516 North 4th St., Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available.

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Milan (Italy) 1972. Also colon and rectal surgery. Group or partnership. Available.

Alan Berger, M.D., 10 Landing Lane, Apt. IP. New Brunswick, NJ 08901. Temple 1976. Also, vascular surgery. Board eligible. Group or partnership. Available.

Rao S. Bhatraiu, M.D., 10030 North 43rd Avenue, Apt. 1066, Glendale, AZ 85302. Guntur (India) 1973. Also, vascular surgery. Board eligible. Group, partnership, solo. Available July 1983.

URGERY, ORTHOPEDIC-Robert P. Mantica, Box 7694 Naval Regional Medical Center, Guam, FPO San Francisco 96630. Cornell 1975. Board eligible. Group or partnership. Available July 1983.

SURGERY, PLASTIC-Parvaiz A. Malik, M.D., 5088 Clavridge Dr., Apt. 214, St. Louis, MO 63129. Dow (Pakistan) 1972. Solo, group, partnership. Available.

Gerald Siemsen, M.D., 3325 East English, Apt. 204, Wichita, KS 67218. Kansas 1957. Board certified. Industrial medicine, research, pharmaceutical or insurance company, institutional medicine. Available.

SURGERY, VASCULAR—Ahmed I. Khan, M.D., 5627 North 16th St., Apt. H-8, Phoenix, AZ 85016. Dacca (Bangladesh) 1972. Also, general surgery. Any type practice. Available.

Alan Berger, M.D., 10 Landing Lane, Apt. 1P, New Brunswick, NJ 08901. Temple 1976. Board eligible. Group or partnership. Available

Rao S. Bhatraju, M.D., 10030 North 43rd Avenue, Apt. 1066, Glendale, AZ 85302. Guntur (India) 1973. Also, general surgery. Board eligible. Group, partnership, solo. Available July 1983.

UROLOGY-Alexander M. Pagnani, M.D., 3510 Avenue H, Apt. 2-B, Brooklyn, NY 11210. Guadalajara (Mexico) 1976. Board eligible. Any type practice. Available.

Ramesh K. Chopra, M.D., 1920 S. First St., Minneapolis, MN 55454, Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available.

Frederick Greenstein, M.D., 732 E. 91st St., Brooklyn, NY 11236. SUNY-Downstate 1972. Board eligible. Group, partnership, academic, solo. Available.

Tung-Hua Chieng, M.D., 190 Mineola Blvd., Apt. 4-N, Mineola, NY 11501. Taiwan 1973. Board eligible. Group, partnership, solo. Available.

H.S. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Group, partnership, solo. Available.

Richard A. Chazkel, M.D., 201 East 25 St., New York, NY 10010. Hahnemann 1976. Board eligible. Group, solo, partnership.

Tiido Kallas, M.D., 714 Parsons Rd., Ridgewood, NJ 07450. NY Medical 1965. Board eligible. Group or partnership. Alert and **functioning** in the sunset vears



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LETTERS TO THE EDITOR

The Radioallergosorbent Test

June 29, 1982

Dear Dr. Krosnick:

I would like to comment on the article by Arthur Fost, M.D. entitled "The Radioallergosorbent Test (RAST)" that appeared in the June issue of *The Jour*nal.

As a very busy allergist who is performing RAST testing in his own office, I feel obligated to comment on this article. I would like to congratulate Dr. Fost on the article-it was well written. Also, I agree with everything he said in the article regarding the RAST test. I have to emphasize that the RAST test is an adjunct and complementary test to traditional skin testing and should be performed only by an allergist and preferably in the allergist's office. Dr. Fost comments on the variation in values obtained from commercial laboratories during RAST testing; this is exactly the reason why I have decided to perform RAST testing in my own office, and here is where I have to disagree with him.

If an allergist decides to do RAST testing in his own office, it has to be done by a trained person who is assigned to this procedure. This person must not have any other duties in the allergist's office except for the performance of the RAST test. By doing just the RAST test, this person becomes very experienced in the performance of the test and knows the potentials of errors and how to avoid them. It has been my experience to have one person do the RAST test and nothing else; our results are very good and they very much are consistent with skin testing and history of the patient.

I feel that the RAST test is a very useful procedure—it is to be done only on patients where it is indicated, namely, where a patient has a severe skin condition, where a patient is on medication that he or she cannot be taken off safely because of severe bronchial asthma condition, and where safety is the question, due to fear of anaphylaxis. Also, it is the way to evaluate a small child, where

extensive regular skin testing would be very painful and undesirable. On many occasions where the skin tests are equivocal and the history still very much is in favor of atopic causes, RAST testing could be a deciding factor in confirmation of the suspected diagnosis. In the case of insect sting allergy, I feel that RAST has a very useful function in diagnosing true insect sting allergy without the fear of anaphylaxis by regular skin testing with insect venom.

I would like to reiterate that I agree with Dr. Fost and that the RAST test should not be done by anybody but an allergist. I have to emphasize that just ordering a RAST test does not make a physician an allergist—whether he is a pediatrician, general practitioner, or internist. The RAST test may be abused if used inappropriately.

If the conditions that I mentioned previously are observed, then the RAST test is a very valuable aid to the allergist in diagnosis and treatment of allergic diseases.

(signed) Carl Dubovy, M.D.

July 15, 1982

Dear Dr. Krosnick:

Thank you for allowing me the opportunity of responding to Dr. Dubovy's letter. I appreciate his comments and will respond to our areas of disagreement on use (or abuse) of the RAST.

I am sure it is helpful to have one trained technician performing this sophisticated procedure, but that does not address the variations inherent in the test, as described by Hamburger. Hamburger noted enormous variations even in research laboratories performing the RAST procedure on a daily basis. The disc-to-disc variation caused varying results even when the same serum was tested several times a day over four days.

I would agree with Dr. Dubovy that RAST is indicated on the patient who has such a severe dermatitis that skin testing cannot be done. In my 15 years experience as an allergist, I have not yet seen that patient.

I do not know of any medications used for asthma that interfere with skin testing. The antihistamines, of course, do interfere with skin testing but are not used for treatment of severe asthma. For the patient with allergic rhinitis that requires testing, I am sure it is safe to withhold antihistamines for 24 hours or to wait until the symptoms are less severe, and then do the necessary skin tests.

Dr. Dubovy alludes to the "very painful" skin testing. This perpetuates a canard that allergists have been fighting for years. If Dr. Dubovy feels that blood letting is painless for the small child or preferable to properly done skin testing, I suspect he is delegating these chores to his technician.

Because skin testing is more sensitive than RAST, it would not be likely that RAST would be a deciding factor in equivocal cases. The converse would be more true.

While it is true that RAST testing is safe in diagnosing the patient with insect sting allergy, it clearly is not sufficient. Twenty percent of patients with a positive history and skin tests to honey bee or yellow jacket venom will have a negative RAST.² Skin testing remains the "state of the art" for diagnosis of insect hypersensitivity, and RAST measurements presently are of little diagnostic help.³

Dr. Dubovy's letter allows me to reemphasize the major point of my article: a carefully taken history remains the best tool for diagnosis of specific allergens, with confirmation by selected skin testing. Indiscriminate use of RAST only adds to the expense of the patient.

Arthur F. Fost, M.D.

1. Hamburger RN: A cautious view of the use of RAST on clinical allergy. *Immunol Allergy Practice* 3:151-157, 1981.

 Sobotka AK, Adkinson NFJ, Valentine M, Lichtenstein LM: Allergy to insect stings IV. Diagnosis by radioallergosorbent test (RAST). J Immunol 121:2477-2484, 1978.

3. Lichtenstein LM, Valentine MD, Sobotka AK: Insect allergy: The state of the art. J Allergy Clin Immunol 64:5-12, 1979.

ME CALENDA

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, The Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry. For information on accreditation, please contact the sponsoring organization(s), indicated by italics-last line of each

CARDIOLOGY

Oct.

- 3 Cardiovascular Medicine and Surgery 7:30 a.m.-5:45 p.m.—Meadowlands Hilton, Secaucus (UMDNJ and AMNJ)
- 19 Indications for Noninvasive Studies in Cardiology 12 noon-St. Mary's Hospital, Orange (AMNJ)

Nov.

- 16 Nuclear Cardiology 12 noon—St. Mary's Hospital, Orange
- 18 Antiarrhythmic Therapy-Calcium Channel Blockers 2 p.m.—John E. Runnells Hospital of Union, Berkeley Heights
 - (AMNJ) Thromboembolism and Thrombolytic Therapy 12 noon-Freehold Area Hospital (AMNJ)

MEDICINE

Oct.

- Physical Fitness and Sports Medicine in NJ 9 a.m.-4:30 p.m.-Meadowlands Sports Complex, East Rutherford (NJ State Council on Physical Fitness and
- AMNJ) 1 Medical Grand Rounds 11:30 a.m.—UMDNJ-College Hospital, Newark
- (Endocrinology Section of AMNJ) Immunodeficiency Diseases, Especially Gamma Globulin Deficiency 12 noon-Freehold Area Hospital
- (AMNJ) 5 Rheumatology
- 11 a.m.-Greystone Park Psychiatric Hospital (AMNJ) 6 Physiological "Fine Tuning" of a Com
 - promised Patient 7:30 a.m.-2 p.m.—Sheraton Hotel, Elizabeth (Elizabeth General Medical Center and AMNJ)
- 6 Immunology (Clinical) 10:30 a.m.-St. Mary's Hospital, Passaic
- 6 Medical Grand Rounds 11:30 a.m.-VA Medical Center, East (Endocrinology Section of AMNJ)
- 6 Dinner Meeting

- 6-9:30 p.m.—Holiday Inn, East Orange (Endocrinology Section of AMNJ)
- Renal Conference in Nephrology 20 4-5 p.m.-UMDNJ-College Hospital, Newark
 - (Nephrology Society of NJ and Nephrology Section of AMNJ) Classification and Clinical Manifestations
- of Vasculitis 20 Pericardial Disease
- Clinical Approach to Community and Hospital-Acquired Pneumonias 9-11 a.m.-Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJ)
- **Endocrine Conferences**
- 3:30-5:00 p.m.-Rotates between 20 Newark Beth Israel Medical Center,
- UMDNJ-College Hospital,
- United Hospitals, Newark, and VA Medical Center, East Orange (Endocrinology Section of AMNJ)
- 7 Eye Development and Examination 9 a.m.—Freehold Area Hospital (AMNJ)
 - Medical Grand Rounds 9:30 a.m.—Newark Beth Israel Medical (Endocrinology Section of AMNJ)

Complicated Hypertension

- 1-7 p.m.—Golden Nugget Hotel 9 7:30 a.m.-2 p.m.—Golden Nugget
- Hotel, Atlantic City
- (Alexian Brothers Hospital and AMNJ) 13 Loss of Brain Cells with Aging

1:30-5:30 p.m.—Drew University, Madison (Drew University, CIBA-GEIGY Pharmaceutical Division, and AMNJ)

13 Immobile Cilia Syndrome and Related

- Problems 6-7 p.m.—Ramada Inn, Clark
 - (NJ Allergy Society and AMNJ) Moratorium on Cancer Prevention
- Oral Lesions Diagnostic of Systemic Disease
- **Advances in Infectious Diseases** 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)
- Antiarrhythmic Therapy 2 p.m.-John E. Runnells Hospital of Union County, Berkeley Heights
- (AMNJ)19 Allergy 11 a.m.—Greystone Park Psychiatric

Hospital

(AMNJ)

- **Current Chemotherapy** 10:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ)
- Current Concepts and Treatment of Acne 1-2 p.m.-West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ)
- 20 Medical Consequences of a Nuclear War 1-2:30 p.m.-Christ Hospital, Jersey City

(Christ Hospital and AMNJ)

Dermatological Conferences 6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Hwy 1, New Brunswick (UMDNJ-Rutgers Medical School, Div. of Dermatology, and AMNJ)

Nov.

- 3 Colitis 10:30 a.m.—St. Mary's Hospital, Passaic (AMNJ)
- **Medical Grand Rounds** 11:30 a.m.-VA Medical Center, East Orange (Endocrinology Section of AMNJ)
 - 3 Dinner Meeting 6-9:30 p.m.-Holiday Inn, East Orange (Endocrinology Section of AMNJ)
- 3 Clinical Approach to Community and Hospital-Acquired Pneumonias
- Hypokalemia 9-11 a.m.-Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJ)
- 3 Immunologic Factors in Acute and Chronic Lung Injury
- To be announced
- Diagnosis and Management of **Esophageal Disorders** 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)
- Renal Conferences in Nephrology 4-5 p.m.-UMDNJ-College Hospital, Newark

(Nephrology Society of NJ and Nephrology Section of AMNJ) **Endocrine Conferences**

- 3:30-5 p.m.-Rotates between
- Newark Beth Israel Medical Center, 17
- 24 UMDNJ-College Hospital, Newark, United Hospital, and VA Medical Center, East Orange
 - (Endocrinology Section of AMNJ) 4 Systemic Lupus Erythematosus 9 a.m.-Freehold Area Hospital (AMNJ)
- 4 Medical Grand Rounds 9:30 a.m.-Newark Beth Israel Medical
- (Endocrinology Section of AMNJ) 5 Medical Grand Rounds 11:30 a.m.-UMDNJ-College Hospital, Newark

(Endocrinology Section of AMNJ) Third New Jersey Consecutive Case Conference

- 9 a.m.-3:30 p.m.
- 9 a.m.-12:15 p.m.-Scanticon Conference Center, Rt. 1, Princeton (NJ Thoracic Society and AMNJ)
 - Postgraduate Allergy Seminar on RAST-Based Immunotherapy 8:45 a.m.-3:30 p.m.
- 8:45 a.m.-3:30 p.m.
- 8:45 a.m.-12 noon-Tropicana Hotel, Atlantic City (Holy Name Hospital, American Academy of Otolarynogolic Allergy, and AMNJ)



Internal Medicine Board Review

WEDS. 4 to 7 P.M. — JAN. 5 to JUNE 22, 1983 — (No Session Mar. 30th)

-COURSE DIRECTORS -

Saul J. Farber, M.D.

Frederick H. King, Professor of Internal Medicine and Chairman, Department of Medicine

Mitchell H. Charap. M.D. Instructor in Medicine

——COURSE DESCRIPTION -

A successfully tested method by which to prepare for either board certification or recertification in medicine. In an attempt to provide more effective retention of cognitive material, the Post-Graduate Medical School has spread the basic and clinical information over a six-month time span with weekly three-hour sessions running from January through June 1983.

Each teaching session is divided into two parts: 1) a brief summary lecture emphasizing the essential and relevant status of the area under discussion and, 2) a self-assessment examination workshop based on questions found on certification and recertification examinations providing responses with explanations of appropriate and inappropriate answers. A principle goal of the course is to provide the *reasoning* behind the identification of responses to questions. At each session written material pertinent to the following week's subject will be distributed to the registrants.

-PROGRAM TOPICS ·

Cardiology Hematology Infectious Diseases Diabetes Hypertension Neoplastic Diseases Dermatology Gastroenterology Neurology Pulmonary Diseases Rheumatology

Endocrinology Clinical Immunology Nephrology

-FACULTY -

Francis V. Adams Steven B. Abramson Bertrand Agus Edward L. Amorosi Fred A. Bevelagua Manfred Blum Ronald Blum Morton A. Bosniak Mitchell H. Charap Paul G. Deutsch Andrew J. Drexler Frederick Feit Michael L. Freedman Arthur C. Fox Stuart M. Garay Ephraim Glassman FEE: \$760

Roberta M. Goldring Melvin C. Gluck Loren W. Greene H. William Harris Charles G. Hazzi Charles S. Hollander Robert S. Holzman Lawrence Horowitz Martin L. Kahn David L. Kamelhar Thomas G. Kantor Irving Karten Lois A. Katz David L. Kleinberg Neil Kramer Kenneth R. Krauss Itzhak Kronzon Mark H. Levin Richard I. Levin Jerome Lowenstein Bruce J. Mack Robert Matalon Andrew M. Milano Hal J. Mitnick Franco M. Muggia Joel Neugarten Valerie H. Peck Robert A. Press Marie Pulini David L. Ramsay Bruce G. Raphael Stephen B. Richardson Michael F. Schloss Robert Silber Michael S. Simberkoff Stephen A. Smiles James L. Speyer Robert J. Spiegel Norton Spritz Paul A. Tunick Fred T. Valentine James C. Wernz Stanford Wessler Howard E. Winer

ACCREDITATION: 72 AMA Category I Credit Hours

Course #302 INTERNAL MEDICINE BOARD REVIEW

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(212) 340 -5295	(24-hour telephone)			N I O I	

- Peripheral Vascular Diseases 11 a.m.-Greystone Park Psychiatric Hospital (AMNJ)
- 13 Present-Day Concepts in the Treatment of the Elderly 9 a.m.-4 p.m.-Stevens Institute of Technology, Hoboken (Hudson County Medical Society)
- Diabetic Nephropathy 1-2 p.m.-West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ) 17 Dermatological Conferences

6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Hwy 1, New Brunswick (UMDNJ-Rutgers Medical School and AMNJ)

23 Antibiotics 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)

NEUROLOGY/PSYCHIATRY

Oct.

2 Diagnosis and Treatment of Schizophrenia

9 a.m.-4 p.m.—Fair Oaks Hospital, Summit (Fair Oaks Hospital/ Regent Hospital and AMNJ)

- 4 Huntington's Disease
- 18 Catecholamines

11:30 a.m.-12:30 p.m.-Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

- 5 Psychiatric Case Conference
- 12 7:30-9:30 a.m.—Trenton Psychiatric
- 19 Hospital
- 26 (Trenton Psychiatric Hospital and AMNJ)
- Drug-Induced Psychoses
- 14 Recent Developments in Epilepsy 12 noon-1 p.m.—Carrier Foundation Belle Mead (Carrier Foundation and AMNJ)
- 13 Headaches

1-2:30 p.m.-Christ Hospital, Jersey (Christ Hospital and AMNJ)

Prevention of Mental Illness in Children: The Adolescent at Risk 8:30 a.m.-4:30 p.m.—Mountainside Hospital, Montclair (Departments of Psychiatry, Pediatrics, and Family Practice, Mountainside Hospital and AMNJ)

19 Genetrics and Psychiatry 2 p.m.-Ancora Psychiatric Hospital, Hammonton (AMNJ)

Interventions in Clinical Psychiatric Nursing Care

- 26 9 a.m.-4 p.m.-Center for Health Affairs, Princeton
- 9 a.m.-4 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation)

Nov.

- Psychiatric Manifestations of Seizure Disorders
- Neurological Complications of Lupus CAT Scans—An Update
- Arteriovenous Malformations

- 11:30 a.m.-12:30 p.m.-Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)
- Psychopathology and Clinical Strategies in Caring for the Older Adult 8-10:30 p.m .- So. Orange Junior High School, So. Orange (Mental Health Association of Essex County and AMNJ)
- 4 Malingering

11 The Munchausen Syndrome 12 noon-1 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

16 Psychopharmacology 2 p.m.-Ancora Psychiatric Hospital, Hammonton (AMNJ)

Family Therapy in Medical Illness

- 9:30 a.m.-4 p.m.-Center for Health Affairs, Princeton
- 9:30 a.m.-4 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

OBSTETRICS/GYNECOLOGY

Oct.

Diagnosis and Treatment of Gynecological Cancer 9-11 a.m.-Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJ)

27 Laparoscopy: Use, Indications, Contraindications 1-2:30 p.m.—Christ Hospital, Jersey (Christ Hospital and AMNJ)

Nov.

10 Hyperprolactinemia 9-11 a.m.-Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJ)

23 In Vitro Fertilization 8-10 p.m.—Englewood Club, 115 E. Palisade Ave., Englewood (Englewood Surgical Society and AMNJ)

PATHOLOGY

Oct.

- 7 Gene Expression
- 14 **DNA Repair Processes**
- 21 Gene Mapping
- Histones and Nuclear Structure 4-6 p.m.-Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJ)
- 13 New Developments for Your Clinical Microbiology Laboratory 9 a.m.-4 p.m.-St. Michael's Medical Center, Newark (St. Michael's Medical Center and

AMNJ)

Nov.

- 4 Gene Amplification and Drug Resistance in Cultured Animal Cells
- Transfection: Identification of Cellular 11 Transforming Genes 18 Cellular Organelles-Cytoskeleton and
 - Stress Fibers 4-6 p.m.-Institute for Medical Re-

search, Copewood St., Camden (Institute for Medical Research and AMNJ)

23 Dysmorphology 8:30-10 a.m. (St. Joseph's Hospital and Medical

Center and AMNJ)

PEDIATRICS

Oct.

26 Biliary Atresia and the Cholestatic Syndromes in the Newborn 8:30-10 a.m.—St. Joseph's Hospital, (St. Joseph's Hospital and Medical Center and AMNJ)

Nov.

13 New Trends in Pediatric Surgery 8 a.m.-Newark Beth Israel Medical (Newark Beth Israel Medical Center and AMNJ)

RADIOLOGY

- 10 CT Scanning for Disorders of the Spine 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)
- 20 Dinner Meeting 6:30 p.m.—The Manor, West Orange (Radiotherapy Section, AMNJ)
- 21 Lecture Series 7:15 p.m.—St. Barnabas Medical Center, Livingston (Radiological Society of NJ and Diagnostic Radiology Section of AMNJ)

Nov.

17 Dinner Meeting 6:30 p.m.—The Manor, West Orange (Radiotherapy Section of AMNJ)

Renal Diseases 7:15 p.m.—St, Barnabas Medical Center,

Livingston (NJ Institute for Ultrasound in Medicine, Radiological Society of NJ, and Diagnostic Radiology Section of AMNJ)

SURGERY

Oct.

3 Cardiovascular Medicine and Surgery 7:30 a.m.-5:45 p.m.-Meadowlands Hilton, Secaucus (UMDNJ and AMNJ)

17 Cerebrovascular Insufficiency: A Surgeon's Viewpoint 1-2:30 p.m.—Christ Hospital, Jersey (Christ Hospital and AMNJ)

30 The Spleen Today, When To Remove, When Not To Remove, and How To Preserve 8-9 a.m.—Greater Paterson General

Hospital, Wayne (NJ Division, American Trauma Society and AMNJ)

SURGICAL SPECIALTIES (includes ENT, Neurosurgery, Ophthalmology, Orthopedic, Plastic, and Vascular Surgery)

CMF OPPORTUNITIES

See Pages 777-782 This Issue

STRESS AND THE MANAGER FACT OR FICTION INSTITUTIONS, GOVERNMENT, CORPORATIONS

InterDisciplinary Conference and Workshops October 29-30, 1982 Hyatt Regency Hotel, Montreal, Quebec

Internationally known professionals consulting to institutional and corporate clients, present facts and insights for custom built stress programmes.

Speakers and topics include: Todd Jick, PhD., Stress and the Manager, State of the Art and Future Prospects; Norman Borenstein, M.D., Emotional Trauma Triggering Pain; Margery Cruise, M.SC., R.M.T., Massage Therapy, Self Instruction; Thomas J. Grady, President S.T.R.E.S.S., Founder and President, Ontario Biofeedback Society, Effective Consulting Equals a Better Programme, A Better Practice. Qualifies for AMA Credit, category 2.

Contact: Tom Grady, S.T.R.E.S.S., Box 41, Station R, Toronto, Ontario M4G 3T0, 416-449-5027

SAINT BARNABAS MEDICAL CENTER

presents a symposium:

"A Practical Course in Parenteral and Enteral Nutrition for the Practicing Physician"

> November 10, 1982 9:30 A.M.-3:30 P.M.

This program is designed for practicing physicians to enhance their knowledge of:

- -nutrition assessment
- -hyperalimentation solutions & techniques
- -tube feeding routes and formulae
- -awareness and management of complications
- -nutrition support team functions

Audience participation will be encouraged.

Guest Faculty: John Daly, M.D. Terry Hensle, M.D. George Machiedo, M.D. John Rombeau, M.D.

Contact: Murray H. Seltzer, M.D. Program Chairman **Nutrition Support Service** Department of Surgery Saint Barnabas Medical Center Old Short Hills Road Livingston, New Jersey 07039 (201) 533-5427

TOPICS IN PEDIATRIC INFECTIOUS DISEASES: STADAN NA

NOVEMBER 12, 1982

Medical School Teaching Facility University of Maryland - School of Medicine Baltimore, Maryland

Sponsored by the

Department of Pediatrics University of Maryland School of Medicine

New and exciting discoveries and products are changing the prevention, diagnosis, and treatment of childhood infectious diseases. If you are a practicing pediatrician or family physician, you will find this one day program very valuable in your daily practice as you update your knowledge of the key pediatric infectious diseases.

This symposium will stress:

- New concepts and information Practical approach to diagnosis
- Current therapeutic trends



1983 CME Cruise/Conferences on Legal-Medical



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The programs listed below were scheduled prior to 12/31/80 and conform to IRS tax deductibility requirements under Sec. 602 of the Tax Reform Act—Public Law 94-445 effective 1/1/77.

- January 8-15 (from Lauderdale, FL) 7 Day Caribbean -
- April 2-9 (from Los Angeles, CA) 7 Day Mexican Riviera
- July 2-16 (from San
 - Francisco, CA) 14 day Alaska/Canada
- July 27-Aug 6 (from Ft. Lauderdale, FL) 10 day Caribbean -
- Aug 20 Sept. 3 (from Venice, Italy) 14 day Mediterranean

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For color brochure and additional information contact:

International Conferences 189 Lodge Ave. Huntington Station, N.Y. 11746 Phone (516) 549-0869

Oct.

26 Ambulatory Plastic Surgery 8-10 p.m.—Englewood Club, 115 E. Palisade Ave., Englewood (Englewood Surgical Society and AMNJ)

Nov.

3 New Trends in Pediatric Surgery 8 a.m.—Newark Beth Israel Medical Center (Newark Beth Israel Medical Center and AMNJ)

MISCELLANEOUS

Oct.

- 6 Malpractice 11:30 a.m.—Columbus Hospital, Newark (AMNJ)
- 6 Computers in Medicine 1 p.m.—Christ Hospital, Jersey City (AMNJ)
- 20 Professional Liability: What's Ahead for

the NJ Physician 8:30 a.m.-4:30 p.m.—MSNJ Executive Offices, Lawrenceville (MSNJ and AMNJ)

Nov.

5 Computers in Medicine 12 noon-1 p.m.—Freehold Area Hospital (AMNJ)

OBITUARIES

Dr. Margaret H. Gantt

Margaret Heigh Gantt, M.D., a member of our Morris County component, died on July 5, 1982. Born in 1900 in Bethlehem, Pennsylvania, Dr. Gantt earned a medical degree at Cornell Medical School, New York, in 1927. She was affiliated with Memorial Hospital, Morristown. Dr. Gantt was a member of the American Medical Association.

Dr. Alfred S. Hanson

Word has just been received of the death of Alfred S. Hanson, M.D., of Pennsauken. Born in 1907, Dr. Hanson was graduated from Temple University School of Medicine, Philadelphia, in

1932. A pediatrician for over 50 years, Dr. Hanson received the Golden Merit Award from the Medical Society of New Jersey this past May. During his career, Dr. Hanson was affiliated with Cooper Medical Center, Camden, and Children's Hospital, Philadelphia.

Dr. Roland E. Lueddecke

At the grand age of 87, Roland Ehlers Lueddecke died on July 18, 1982. Dr. Lueddecke was graduated from New York University Medical School in 1920; he completed an internship at Hackensack Hospital. Dr. Lueddecke was a family practitioner in East Rutherford and Carlstadt and was affiliated with Hackensack Hospital. Dr.

Lueddecke was a member of our Bergen County component and of the American Medical Association.

Dr. William L. Salaky

William Lawrence Salaky, M.D., died on July 5, 1982. A lifelong resident of Perth Amboy, Dr. Salaky was a member of our Middlesex County component. Born in 1910, Dr. Salaky earned a medical degree from Hahnemann Medical College, Philadelphia, in 1938. Dr. Salaky was a practicing family physician and surgeon for 42 years at Perth Amboy General Hospital until his recent retirement. Also, he served as team physician for Perth Amboy High School for 25 years.

The Department of Surgery of Jefferson Medical College is pleased to present a symposium on Pancreatic Cancer on Tuesday afternoon, October 19, 1982, in the Samuel D. Gross Conference Room of Jefferson Medical College.

The program is intended for physicians involved in the care of pancreatic cancer patients including internists, surgeons, gastroenterologists, primary care physicians and medical oncologists.

Fee—Physicians, Nurses, \$10; Interns, Residents, Fellows, Medical Students, no fee. This program is accredited for three (3) hours of Category I AMA credit.

For further information write or call:
Office of Continuing Medical Education
Jefferson Medical College
Dean's Office
1025 Walnut Street
Philadelphia, PA 19107
(215) 928-6992





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CARDIOLOGY UPDATE . . .

is designed for the physician and provides an intensive survey of the current status of clinical cardiology . . .

WEDNESDAY, OCTOBER 6, 1982

20 minute lectures—Questions and Answers (10 minutes)
MODERATOR: BERNARD L. SEGAL, M.D.

USE OF BETA-BLOCKERS AFTER MYOCARDIAL INFARCTION
Bernard L. Segal, M.D.

INDICATIONS FOR CLINICAL ELECTROPHYSIOLOGIC TESTING IN PATIENTS WITH CARDIAC ARRHYTHMIAS Leonard N. Horowitz, M.D.

PERCUTANEOUS TRANSLUMINAL CORONARY DILATATION: 1982—CASE PRESENTATION

Demetrios Kimbiris, M.D.

HEART FAILURE: THE EFFECTS OF NEW DRUGS

David T. Lowenthal, M.D.

CASE PRESENTATION/DISCUSSION

Stanley Spitzer, M.D.

3:00 PM—2nd floor New College Building, Hahnemann Medical College and Hospital
NO REGISTRATION FEE NO ADVANCE REGISTRATION REQUIRED
CME CATEGORY I CREDITS CERTIFIED

WINE & CHEESE SERVED FOLLOWING CONFERENCE

Clinical Diabetes: Modern Management

Stephen Podolsky, M.D. (ed). New York, NY, Appleton-Century-Crofts, 1980.

In his usual thorough manner, Dr. Podolsky has compiled an outstanding textbook of his own writings and those of a distinguished group of well-known diabetologists. It is a sophisticated work for the practicing internist; it is written, as Podolsky says, from the trenches of medicine, from active office and hospital practice with daily direct patient contact.

Unfortunately for the author, there has been a veritable explosion of new methods since the book was published in 1980, and many current concepts and methods are not detailed adequately in Clinical Diabetes: Modern Management. The standards for diagnosis of diabetes still are those of the Fajans and Conn era rather than those of the National Data Group of the National Institute of Health that convened in April, 1978; there is scant mention of pumps, either closed or open loop, implantable or nonimplantable; and little of the present state of pancreatic transplants, either organ or islets. There only is mention of home glucose monitoring and no mention of the present high success of diabetic pregnancies because of home glucose monitoring. Despite this criticism, Clinical Diabetes: Modern Management is a fine book and I look forward to its revision to include current developments.

Samuel E. Einhorn, M.D.

Clinical Strategies in Adult Asthma

Charles H. Scoggin, M.D., and Thomas L. Petty, M.D. Philadelphia, PA, Lea & Febiger, 1982. Pp. 149. Illustrated. (\$9.75)

Scoggin and Petty's new text contains a wealth of practical information packed into 149 pages. Clinical Strategies in Adult Asthma systematically outlines the management of adult asthma with a minimum of theoretical background. However, there is enough physiologic data for the clinician to have a solid understanding of the pharmacotherapy.

The systematic approach employed by the authors using an ABC framework may seem to some like cookbook medicine; but it provides a solid foundation upon which the practitioner, depending upon the level of expertise, may individualize therapy. Such subjects as the hidden asthmatic, industrial asthma, exercise-induced asthma, and burst steroid therapy, especially in restoring the response to bronchodilator aerosols, are well done. The chapter on managing the most difficult asthmatic should serve as a standard reference for all physicians who see such complex and demanding patients. The use of question and answer techniques with condensed case reports reinforces the points in the text.

Not everyone will share the authors' enthusiasm for the use of atropine and its derivative atrovert, that after almost a decade of research has yet to be released in the United States. But discussion of such subjects by these experienced authors is stimulating to the reader. The eight-page cross-index is adequate. The extensive bibliography at the end of each chapter should satisfy the reader who wishes to explore a subject in more detail.

This excellent and inexpensive paperback is a welcome addition to any physician's library and should remain at the fingertips for quick reference in office, clinic, or emergency room.

Ellis P. Singer, M.D.

Current Cardiology, Volume 2

Kenneth M. Rosen, M.D. (ed). New York, NY, John Wiley & Sons, Inc., 1980. Pp. 415. (\$50)

Kenneth M. Rosen, M.D., author and editor of this book, is Chief, Cardiology Section of Abraham Lincoln School of Medicine, University of Illinois College of Medicine, Chicago. Current Cardiology. Volume 2 mainly deals in technical applications of the newer modalities.

At a meeting of the American College of Cardiology, held at the Cedars-Sinai Hospital, Los Angeles, earlier this year, the featured speaker, Dr. H.J.C. Swan, made the comment that today's cardiologist is expected to be knowledgeable in all the newer methods avail-

able for comprehensive cardiac examination, which today include both the noninvasive testing methods as well as the various available surgical procedures.

Within the past 25 years, the study and practice of cardiology has made new and stellar advances. This reviewer recalls that as a student, an intern, and a starting clinician, it was considered standard procedure to rely on history, physical, ECG, x-ray of heart and chest, hematology, and serum chemistries as the basis of cardiac diagnoses and the protocol for therapy.

Today this is not enough.

This volume, published in 1980, describes and teaches the newer methods. Dr. Kenneth Rosen has brought together expert contributors to discuss their particular specialty in a concise manner. Their fields cover the following: electrocardiography, echocardiography, stress testing, exercise physiology, cardiac rehabilitation, radionuclear measurements, clinical electrophysiology, pediatric cardiology, surgery for ischemic and valvular heart diseases, and much more. Each chapter is well documented with a bibliography of references.

Since 1980, further advances are in the making with the use of newer modalities in noninvasive techniques. Studies are in operation for the use of digital fluoroscopy and computerized tomography alone or in combination with radionucleotides for definitive imaging of specific coronary vessels, chamber size, and volume capacity. Ultrasonics have advanced in the assessment of chronic coronary artery disease by direct visualization of the vessels by means of two-dimensional imaging. Combinations of the data processed by more than one modality are fed into computers and visual screens to produce information believed impossible in this short period of time. The gamma camera information is being supplemented with smaller internal probe catheters gathering data from capillary-sized areas.

The chapter on cardiovascular surgery by Clarence S. Weldon, M.D., Chief of Cardiothoracic Surgery, Washington University School of Medicine, indicates that operative procedures have been devised for the correction of nearly all forms of structural abnormalities of con-

genital malformations, with hope to attain further improvement to restore normal cardiac functions throughout a normal life expectancy.

The material was intellectually stimulating and useful as the editor intended it to be. The text is recommended for any physician's library.

Harry M. Poppick, M.D.

Radiology of the Emergency Patient: An Atlas Approach

Edward I. Greenbaum (ed). New York, NY, John Wiley & Sons, Inc., 1981. Pp. 831. (\$73)

Editor Edward 1. Greenbaum has selected a group of 29 leading and predominantly imaging specialists in the field of emergency care to present readers with a moderately comprehensive and extensively illustrated publication. The rendering of prompt and efficient emergency care constantly is testing the resources of hospitals and the skill of physicians because of increasing requirements for these services.

Radiology of the Emergency Patient: An Atlas Approach should be of maximum value to the radiologist, the resident radiologist, and all other physicians who treat emergency room and intensive care patients from house staff to attendings.

As expected, the chapters are devoted predominantly to trauma patients; there is pertinent coverage of the nontraumatized patient. The chapters also are organized according to anatomic regions of interest. Additional chapters emphasize the importance of modern imaging devices such as computerized axial tomography, nuclear medicine, and ultrasonography, and their role in emergency services. The book is rounded out with timely courtdocumented cases related to law and the emergency room patients, systems of trauma care delivery and assessment, and management of patients with multiple injuries. The editor has placed specific emphasis on the cervical spine. However, all chapters reveal a practical thoroughness. The subject matter includes material from both radiologic and orthopedic literature.

Those radiologists familiar with the current generation of CAT scanners will recognize immediately that the CAT illustrations were derived from older imaging units. A very small number of other radiographic illustrations lack detail. Nevertheless, the book fulfills the commitment to its subtitle.

Radiology of the Emergency Patient: An Atlas Approach is recommended highly to radiologists and emergency care physicians who strive for optimum medical care and who must cooperate in the management and treatment of these patients.

Lloyd N. Spindell, M.D.

Special Report on Depression Research

National Institute of Mental Health. Washington, DC, Government Printing Office, 1982. Pp. 138.

Special Report on Depression Research is one of a series of NIMH science reports that aims to make available recent research findings to scientific, academic, and professional communities. Depression probably is the most common of psychiatric disorders. Depression incapacitates millions of people annually and it may be fatal; nearly 30,000 people kill themselves annually in the United States, so that suicide is close to the tenth leading cause of death. The long-term risk of suicide in the depressive disorders is between 10 and 15 percent. The cost in psychic pain, loss of productivity, and disturbed family relationships is beyond calculation.

This report presents a review of the current and classical literature on depression research. With very few exceptions, the literature reviewed was published between 1969 and 1980. It is evident that the past decade has seen dramatic progress in our understanding of the causes and varieties of depression and in our abilities to use newer and

more specific methods of psychotherapy and pharmacotherapy. Although the book does not have an index, the list of contents is detailed so that one easily can find information on such topics as genetic epidemiology, adrenergic receptor function, cognitive theories of depression, mechanism of action of electroconvulsive therapy, and depression in childhood. The volume also contains a section on recommendations for further research (with the disclaimer that it is not intended to predict future research priorities of NIMH).

This monograph is a useful reference work for those seeking the state of current research in depressive disorders.

A. Arthur Sugerman, M.D.

The Surgical Wound

Peter Dineen (ed) and Gavin Hildick-Smith (assoc ed). Philadelphia, PA, Lea & Febiger, 1982. Pp. 222. Illustrated. (\$28)

The Surgical Wound is a compilation of papers presented at the symposium, "The Biology and Management of Surgical Wounds," held under the auspices of the New York Hospital Cornell Medical Center. It represents the most current thinking in the basic physiology and clinical management of the surgical wound.

The first section (Chapters I to IX) deals with basic research, e.g. role of angiogenesis, chemoattractants, mast cells, mononuclear cells, epidermal cells, and collagen biochemistry. It would be helpful if the respective author summarized his work at the end of each chapter.

The second section (Chapters X to XVII) primarily is an attempt to integrate the current state of investigative knowledge into the clinical management of wounds, e.g. keloids, wound infections, and wound healing. Clinical problem solving based on sound biologic principles remains the key to improved wound care.

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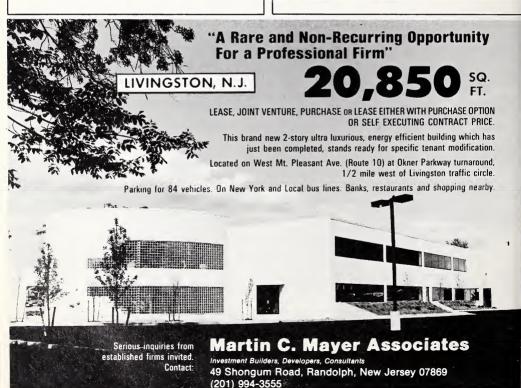
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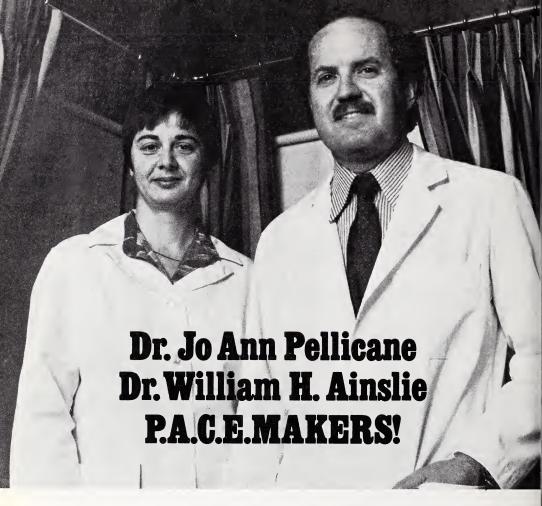
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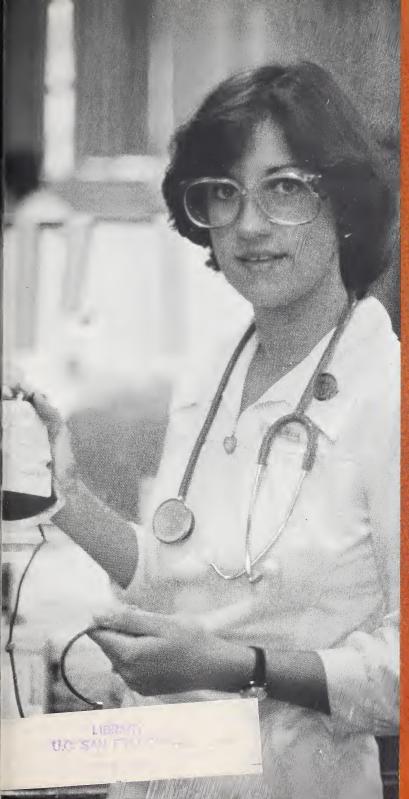
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Table of Contents

Table of Contents
Page 792

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CONTENTS

796 PROFESSIONAL LIABILITY COMMENTARY

EDITORIALS

- 801 Who Overdoses?
- 802 Dr. Robert Garber Honored
- 802 The Academy of Medicine of New Jersey
- 804 JEMPAC REPORTORIAL
- 809 LIFELINE PROGRAM

ARTICLES

- 812 Percutaneous Radiofrequency Rhizotomy for Spasticity
 Abbott J. Krieger, M.D., and Anne S. Crowder, R.N., East Orange
- 819 Suicide: Trends in New Jersey David Lester, Ph.D., Pomona
- 823 Use of a Type and Screen Program in Hospital Blood Bank Inventory Control Frederick Muschenheim, M.D., Denville
- 829 NJ Physician Assistant Graduates Are Successful Practitioners Laura Brown Nelson, Ed.D., Newark
- 835 Scrotal Emphysema
 R.A. Moore, M.D., K.W. McNicholas, M.D., F.N. Niguidula, M.D.,
 D.L. Clark, M.D., Browns Mills

CASE REPORTS

- 838 Squamous Cell Carcinoma of the Thyroid D.C. Budd, M.D., D.L. Fink, M.D., M.Y. Rashti, M.D., T.H. Woo, M.D., Paterson
- 843 Adrenocortical Carcinoma
 W.A. Dwyer, Jr., M.D., J.A. Colfax, M.D., R. Khanna, M.D., Paterson

YOUR CONGRESSMAN SPEAKS

- 847 Harold C. Hollenbeck, Washington, DC
- 849 NUTRITION UPDATE
- 851 1982-1983 SPECIAL COMMITTEES & SPECIAL LIAISON REPRESENTATIVES

DOCTORS' NOTEBOOK

- 854 UMDNJ Notes
- 855 MSNJ Auxiliary
- 855 Medical Philately
- 855 Physicians Seeking Location in New Jersey
- 859 LETTERS TO THE EDITOR
- 861 PERSONAL ITEMS
- 861 CME CALENDAR
- 869 BOOK REVIEWS



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According to a report from the Surgeon General, more than two grams of sodium per day "may contribute to the development of high blood pressure in some people...."1 Thus, for every

Riopan[®] and

Promoting Health/Preventing Disease: Objectives for the Nation. U.S. Department of Health and Human Services, November 1980.

The low-sodium antacids

An in vitro simulation of gastric ulcer acid level conditions based on standard laboratory methodology. Data on file. Ayerst Laboratories. Acid-neutralizing capacity of RIOPAN and RIOPAN PLUS = 13.5 mEq/5 ml or tablet.

Ayerst Laboratories New York NY 10017

Riopan...every time you choose an antacid.

7792/382

Keep Medical Concerns Out of the Courts

s physicians, we are committed to providing the best health care possible to patients, with a continuing dedication to maintaining the high quality of the medical community. Sometimes, we are faced with a colleague whom we may feel is not practicing good medicine. Some kind of action is necessary, and there is a right way and a wrong way to handle it.

The courts generally are the wrong way. Recently, several physicians wanted to take action against what they thought were bad doctors and did it by agreeing to help plaintiffs in malpractice suits even before reviewing the defendants' records. The doctors were sincere in their efforts to improve the quality of medical care; but not until they were involved in the trial did they realize that malpractice suits rarely improve anything but a plaintiff lawyer's bank account.

A doctor who has had a malpractice suit filed against him is not necessarily a bad doctor. Since our policy is to settle meritorious cases reasonably, only defensible cases, in which fellow doctors find no negligence, go to court.

Thus, a doctor who volunteers to testify for a plaintiff in an effort to improve medical care is disagreeing, perhaps reasonably, with other doctors whose professional judgment was that there was no negligence or who feel the plaintiff was making unreasonable demands.

In some cases, a doctor may agree to review a case for a plaintiff's attorney and find what he honestly thinks is substandard care. Perhaps he has heard little good about the defendant physician. Perhaps the records imply "malpractice." In one recent case, a physician was in that situation. He wrote a review of the case, a rather scathing one, because he wanted to "teach those guys a lesson" about how they were practicing. Whether the lesson was learned or not, the main accomplishment was a lawsuit.

What is the right way to improve medical care? Generally, through established medical community channels, such as hospital executive committees and the Board of Medical Examiners. If you think someone is practicing bad medicine, try to work with fellow physicians to reform or remove him. Our goal is for the medical community to police itself, to remove the "bad apples," and to improve patient care. If you do feel there may have been negligence, be sure to consider all aspects of the case, including the defendant's point of view and the details of the incident before hastily reaching a fixed conclusion.

In the kind of malpractice crisis we are facing now, we cannot afford thoughtlessly to encourage litigation. Working within the medical community helps keep nonmeritorious claims out of the court system. (A. Derrill Crowe, M.D. President, Mutual Assurance Society of Alabama, *The Bottom Line*, Vol. 4, No. 5, June 15, 1982)

ANOTHER TREND?

In Chicago, a newsletter, Cook County Jury Verdict Re porter, stated that a professional liability claim has been brought by an adoptive parent. The parent seeks \$1.5 million in damages from two physicians who delivered an infan three years ago while its supposed manic-depressive mothe was said to be in "full leather restraints." The suit charge that only after adoption was the child found to have physical and mental disabilities.

CDS PRESCRIBING PRACTICES RESULTS IN SYMPOSIA AND GUIDELINES

The problem of physicians who wrongfully prescribe drug has come under increased scrutinization by the State Board of Medical Examiners and the Attorney General's Office.

The Medical Society of New Jersey's Ad Hoc Committe on Drug Abuse and Dr. Richard Corbett, Chairman of tha Committee, studied the problem and recommended th development of an educational program for physicians re garding the prescribing of controlled, dangerous substances

As a result, the Medical Society of New Jersey, Th Academy of Medicine of New Jersey, and the Division o Alcohol, Narcotics, and Drug Abuse Control of the New Jersey Department of Health have cooperated in the development of "CDS Prescribing Practices," a roving symposia and a physician consultant program. Additional in formation may be obtained by contacting The Academy of Medicine in Lawrenceville, (609) 896-1717.

Dr. Corbett believes that the misuse of CDS in New Jerse is basically with physicians who are not aware of the lay and/or are not aware of alternate ways to help probler patients. It is felt that physician participation in the symposi

^{*}This item, from the Department of Professional Liability Contro MSNJ, was prepared by James E. George, M.D., J.D., and A Ronald Rouse, who are, respectively, Director of the Departmen and Director of Special Projects.

and the use of physician consultants will alleviate greatly the wrongful prescribing of drugs.

In the winter issue of the *Physician Legal Bulletin*, Richard Corbett, M.D., and James E. George, M.D., J.D., will coauthor a detailed report on this subject including uidelines for prescribing drugs.

DID YOU KNOW . . .

Proposed legislation which would have extended the statate of limitations for medical malpractice "to forever" was defeated in Virginia's state legislature?

Mrs. Loretta J. McDevitt, a chiropractor's widow in Alhambra, California, is soliciting money from physicians and providing information on how to obtain gerovital GH3, which the FDA has ruled as illegal? The California Medical Association has referred the matter to the postal authorities and the FDA.

The average malpractice award against doctors is about ½ times what it was in 1975, but awards against hospitals are 5 times higher? In cases where doctors and hospitals are odefendants, awards have nearly tripled. About 30 percent of the awards against hospitals and hospital-doctor codefendants are \$500,000 or more, but just 17 percent of the awards against doctors are that high. (Medical Economics, July 19, 982)

When a patient tells you it is not necessary to spell out the isks of a procedure, the usual consent form is not enough to rotect you in court? Thomas J. Harlan, a Norfolk, Virginia, nalpractice defense attorney, recommends you have the attent sign a form that reads, "I've been offered an explanation of the risks involved in this procedure, but I have eclined that explanation." (Medical Economics, July 19, 982)

MEDICAL ASSISTANTS NEED PROFESSIONAL LIABILITY COVERAGE

"We live in a litigation-oriented society that demands accountability from all those who serve it. Today, allied health professionals increasingly find themselves defendants in a court of law. They suddenly may be called upon to protect themselves against charges ranging from invasion of privacy to negligent behavior to malpractice.

In such a climate, the doctrine of *respondeat superior* is not adequate protection against litigation for an action of commission or omission, however unintentional.

"You, the medical assistant, are no exception. However qualified and conscientious you may be, you still are vulnerable to legal charges."

This quote was taken from an article entitled, "The Case For Professional Liability Insurance," representing the view of the American Association of Medical Assistants.

Physicians can obtain coverage for their medical assistants through their medical malpractice insurers or obtain descriptive literature and enrollment material through the AAMA's insurance administrators—Group Administration Agency, Inc., 20 North Wacker Drive, Chicago, IL 60606.

THE DEPARTMENT OF PROFESSIONAL LIABILITY CONTROL CONDUCTS MEDICOLEGAL SEMINAR

The Department of Professional Liability Control will conduct a medicolegal seminar entitled, "What's Ahead for the New Jersey Physicians," to be held on October 20, 1982, at the Medical Society of New Jersey's Executive Offices in Lawrenceville. Please see the announcement in this issue of *The Journal*.

HYPERTENSION:



METHYLDOPA? RESERPINE?

INDERAL? COUNTLESS
L-instead of Preservine. THOUSANDS Today, INDERAL -instead of nethyldopa, instead of reserpine. INDERAL exhibits few of the isturbing side effects of methyldopa nd reserpine. Sedation, depression, and npotence are rare. Tolerance is not likely to **EROFF** ccur, as it frequently does with methyldopa. or the vast majority of patients—INDERAL

neans a step toward improving the quality of fe. (INDERAL should not be used in the presence of ongestive heart failure, sinus bradycardia, heart block reater than first degree, and bronchial asthma.)*

INDERAL blocks beta-receptor sites in the heart to educe heart rate and cardiac output—reducing cardiac ork load—sparing an overburdened heart.

Hypertensive hearts can rest easy with INDERAL. or many—it is ideal, first-step therapy.

INDERAL—the sooner, the better for ypertension—a leading risk factor in oronary heart disease.

DERAL (PROPRANOLOL HCI) **B.I.D.**The sooner, the better.



THE MOST WIDELY PRESCRIBED BETA BLOCKER IN THE WOR





BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR) Inderal® (propranolol hydrochloride)

BEFORE USING INDERAL (PROPRANOLOL HYDROCHLORIDE), THE PHYSICIAN SHOULD BE THOROUGHLY FAMILIAR WITH THE BASIC CONCEPT OF ADRENERGIC RECEPTORS (ALPHA AND BETA), AND THE PHARMACOLOGY OF THIS DRUG

CONTRAINDICATIONS

1) bronchial asthma, 2) allergic rhinitis during the pollen season, 3) sinus bradycardia and greater than first degree block, 4) cardiogenic shock, 5) right ventricular failure secondary gleat purpose of the withdrawal period from such drugs

WARNINGS

CARDIAC FAILURE. In congestive heart failure, inhibition with beta-blockade carries the CANDIAC PAILORE In Congestive near failure, initionion with deta-diockade carries the potential hazard of further depressing myocardial contractifity and precipitating cardiac failure. In patients already receiving digitals, proprianolol may reduce the positive inotropic action of digitalis and may have an additive depressant effect on AV conduction. IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, in rare instances, cardiac

failure has developed during propranolol therapy. At the first sign of impending cardiac failure, patients should be fully digitalized and/or given a diuretic, and observed closely raider, paraleria shound be unly displicated adrund of given a fundament, and observed upon principal cardiac failure continues, despirate dequate digitalization and diuretic thereby pro-pranciol should be immediately withdrawn, b) if tachyarrythma is being controlled, patients should be maintained on combined therapy and closely followed until threat of cardiac failure is over.

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of INDERAL therapy Therefore, when discontinuance of INDERAL is planned the dosage inderhal, inerapy inerefore, when discontinuance of inderhal, is planted the obsage should be gradually reduced and the patient carefully monitored in addition, when INDERAL is prescribed for anging pectors, the patient should be cautioned against interruption or essation of therapy without the physicians advice if INDERAL therapy is interrupted and exacerbation of anging occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina packy as or naccontrainted acts of appropriate to the reasonage international able angina packy as or naccontrainted and the appropriate to the above advice in patients considered at risk of having occult atherenced to the art disease, who are given propriated for other indications.

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long term use IN PATIENTS WITH IMPHOTOXICUSIS, DOSSIGNE detections effects from indigerm use have not been adequately appraised. Give special consideration to progranofol's potential for aggravating congestive heart failure Propraindiol may mask the chinical signs of devel-oping or confirming hyperthyroidism or compilications and give a false impression of improvement. Propranotol should be withdrawn slowly, since abrupt withdrawal may be fol-lowed by an exacerbation of symptoms of hyperthyfoldism, including thyroid storm. Pro-pranotol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe brady-cardia requiring a demand pacemaker. In one case this resulted after an initial dose of

5 mg proprianolol IN PATIENTS UNDERGOING MAJOR SURGERY, beta-blockade impairs the abil IN PATIENTS UNDERGOING MAJOR SURGERY, Beta-blockade impairs the fability of the heart to respond to reflex stimuli. Except in pheochromocytoma, progranolid should be withdrawn 48 hours prior to surgery in case of emergency surgery, the effects of proprianolid can be reversed by administration of beta-receptor againsts such as isoproterion or levarterion), but such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has been reported. IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRON-CHITIS, EMPHYSEMA), administer with caution, since progranolol may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of

beta-receptors

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA. Propranolol may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes

The appearance of permitted by significant such lable diabetes. A precipitous elevation acute hypoglycema, especially in patients with labile diabetes. A precipitous elevation blood pressure may accompany hypoglycemic attacks. USE IN PREGNANCY Sate use in human pregnancy not established. Embryotoxic effects have been seen in animals at doses about 10 times the maximum recommended. human dose

PRECAUTIONS

Patients receiving catecholamine depleting drugs such as reserpine should be closely observed if propranolol is administered, since it may occasionally produce hypotension and/or marked bradycardia resulting in vertigo, syncopal attacks, or orthostatic hypote

Observe laboratory parameters at regular intervals. Use with caution in patients with impaired renal or hepatic function

ADVERSE REACTIONS

Cardiovascular bradycardia, congestive heart failure, intensification of AV block, hypol sion; paresthesia of hands; arterial insufficiency, usually of the Raynaud type, thromboc son, paresinesia or narios, attentissiniterio, sustainy or the apiraud type, imminuted topenic purpura Central Neurous System lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatique, reversible mental depression progressing to catatonia, visual disturbances; hallucinations; an acute reversible syndromic characterized by disorientation for time and place, short term memory loss, emotional characterized by disonentation for time and place, short term memory loss, emotional lability slightly clouded sensorium, and decreased performance on neuropsychometric Gastrointestinal nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesentenci arterial thrombosis, schemic colitis Allergic pharyngins and agranulocytosis, erythematous rash, fever combined with aching and sore throat, larynt spasm and respiratory distress. Respiratory bronchospasm Hematologic agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura. Miscellaneous reversible alopeica Oculomucocutaneous reactions involving the skin, serous membra and conjunctivae reported for a beta-blocker (practicity) have not been conclusively as citated with propranoiol. Clinical Laboratory Test Frindings. Elevated blood urea levels in palients with severe heart disease, elevated serum transaminase, alkaline phosphatase. lactate dehydrogenase

TABLETS

-Each hexagonal-shaped, orange, scored tablet is embossed with an "I" and imprint with "INDERAL 10," contains 10 mg propranolol hydrochloride, in bottles of 100 (NDC 0046-0421-81) and 1,000 (NDC 0046-0421-91). Also in unit dose package of 100 (NDC 0046-0421-99)

HOW SUPPLIED

Each hexagonal-shaped, blue, scored tablet is embossed with an "I" and imprinted "INDERAL 20," contains 20 mg propranolol hydrochloride, in bottles of 100 (NDC 004f-0422-81) and 1,000 (NDC 0046-0422-91). Also in unit dose package of 100 (NDC 0046-0422-91). 0422-99)

Each fiexagonal-shaped, green, scored tablet is embossed with an "1" and imprinte with "INDERAL 40," contains 40 mg propranolol hydrochloride, in bottles of 100 (NDC 0046-0424-81) and 1,000 (NDC 0046-0424-91). Also in unit dose package of 100 (NDC 0046-0424-99)

- Each hexagonal-shaped, yellow, scored tablet is embossed with an "I" and imprinte with "INDERAL 80," contains 80 mg propranolol hydrochloride, in bottles of 100 (NDC 0046-0428-91) and 1,000 (NDC 0046-0428-91). Also in unit dose package of 100 (NDC 0046-0428-99)

The appearance of these tablets is a trademark of Ayerst Laboratories

Store at room temperature (approximately 25° C) INJECTABLE

 Each ml contains 1 mg of propranolol hydrochloride in Water for Injection. The pH is adjusted with citric acid. Supplied as 1 ml ampuls in boxes of 10 (NDC 0046-3265-10). Store at room temperature (approximately 25° C) 7997/882

Reference: 1 Freis, E.D. Hypertension (Suppl. II) 3 230 (Nov-Dec.) 1981



Who Overdoses?

Patients who deliberately or accidentally overdose with parbiturates and other popular sedative-hypnotic drugs are very common sights in emergency room practice. There is growing evidence that the frequency of overdosing is increasing at an alarming rate. However, detailed information has to been available on what kinds of people take overdoses and what types of services should be provided for these people in an attempt to prevent recurrences.

A recent monograph* published by the National Institute on Drug Abuse describes a study designed prospectively to collect comprehensive information about sedative-hypnotic verdosage, including data on what specific drugs were used, why they were used, their sources, the contexts within which werdoses occurred, and the role of treatment programs in

he lives of overdose patients.

A sample of 494 patients who were seen in city hospital emergency rooms in spring and summer, 1979, in New York, Miami, Houston, and Boston were studied. Data were collected from the medical records, the patients were inerviewed, and blood samples analyzed. In this sample of irban patients, the sedative-hypnotic overdose appeared as a listinct type of drug problem; 90 percent of the patients eported sedative-hypnotics as the principal drug ingested. The most commonly used drug was diazepam with lurazepam and chlordiazepoxide far behind among the enzodiazepines; methaqualone, the barbiturates, ecobarbital and amobarbital, and ethehlorvynol, were close ogether in the second, third, and fourth positions (Table). Alcohol very often was taken in combination with sedativelypnotics, especially with chlordiazepoxide, diazepam, nethaqualone, and phenobarbital, where more than 50 ercent of the patients ingested alcohol also.

Whether their motivation appeared suicidal or not, the tudy population reported evidence of substantial involvenent with sedative-hypnotic and other drugs; more than half ised licit drugs obtained in a nonmedical manner, about onehird of the patients who overdosed on drugs obtained by egal prescription had been using the drugs for over a year, bout half of the patients reported at least one previous verdosage, and about one-quarter reported three or more previous overdosages. The group with a history of previous verdosages should be seen as a high-risk group for targeted ntervention and routinely should be screened by diagnostic valuation for kind and nature of drug involvement, clinical istory, and treatment history, including prior overdoses, lepression, suicide attempts, and suicide ideation. Patients vho attempt suicide should not be seen as a separate group o be excluded from routine drug problem and drug abuse valuation, but routinely should be screened for drug depenlency. Another conclusion of this study is that early inervention should be directed to all overdosage patients. The

costs of hospital treatment are high (conservatively estimated at over \$600,000 for the 494 patients in the study) and the risks of recurrence also are high. A screening and diagnostic protocol in the form of sets of indicator criteria and a patient interview guide as well as inhospital referral sources is recommended in the hope of identifying patterns of drug abuse and maladaptive coping which may be dealt with by appropriate psychological means. Where specialized drug abuse screening and referral staff have been located in emergency rooms, they have been effective in identifying and referring patients not discovered in the usual patient care system. A good referral system linked with community support systems also is required. Physicians and nurses need

TABLE Generic & Proprietary Names

Generic Name
Diazepam
Flurazepam
Chlordiazepoxide
Methaqualone
Secobarbital
Amobarbital
Ethchlorvynol

Proprietary Name
Valium®
Dalmane®
Librium®
Quaalude®
Seconal®
Amytal®
Placidyl®

special training in the recognition and referral of drugabusing patients. Physicians should be aware of stress situations in a patient's life, prior overdoses or suicide attempts, and psychological problems when selecting and prescribing sedative-hypnotic drugs. It may be prudent to avoid prescribing hypnotics completely in such patients; or if it is clear that the overdose was a bona fide mistake, the patient should be counseled regarding the proper use of medications.

Many implications for future planning, intervention, and prevention research can be drawn from the detailed findings of this study. The authors, Richard I. Shader, Chairman of the Department of Psychiatry, Tufts University School of Medicine, and his colleagues, have put together a pioneering piece of research that should provoke a lot of attention to the drug overdose problem.

A. Arthur Sugerman, M.D.

^{*}National Institute of Drug Abuse: Emergency Room Study of Sedative-Hypnotic Overdosage: A Study of the Issues. Washington, DC, United States Government Printing Office, 1982.

Dr. Robert S. Garber Honored

Robert Slocum Garber, M.D., Senior Consultant and Vice-Chairman, Board of Trustees, Carrier Foundation, recently was honored for his 25 years of leadership at the Carrier Clinic and Foundation. In recognition of Dr. Garber's achievements and contributions in the field of psychiatry, the newly completed medical arts building formally was dedicated to him—the Robert S. Garber Medical Arts Building.

The dedication ceremony was highlighted by a keynote address by Walter E. Barton, M.D., Professor of Psychiatry, Dartmouth Medical School. After remarks by Peter Bryan-Brown, M.D., President of Carrier's medical staff, an oil portrait of Dr. Garber was unveiled; the painting will hang permanently in the lobby of the medical arts building.

Born in 1912, Dr. Garber was graduated from Jefferson Medical College, Philadelphia, in 1934. He completed a residency training at Trenton State College in 1941. Dr. Garber remained at Trenton State Hospital and served as Chief, Men's Division (1941–1942), Assistant Clinical Director (1946-1947), Clinical Director (1947-1948), and Assistant Medical Director (1948-1952). He entered military service in 1942 joining the Cooper Hospital Bed Unit in Europe until 1946

Dr. Garber joined the staff of the New Jersey Neuropsychiatric Institute as Superintendent from 1952 to 1958. He was named Medical Director of Carrier Clinic in 1958; in 1973 he became President of Carrier Clinic and served in that

capacity until November, 1981, when he was named Senior Consultant and Vice-Chairman. (Carrier Clinic became Carrier Foundation in 1977 when it changed to a nonprofit status.)

Dr. Garber is a member of the American Medical Association and of our Somerset County component. He is a Diplomate of the American Board of Psychiatry and a Fellow of the American Psychiatric Association.

Dr. Garber is a former president of the American Psychiatric Association (1970–1971), of the Group for the Advancement of Psychiatry (1965–1967), and of the Nationa Association of Private Psychiatric Hospitals (1972–1973).

In January, 1982, Dr. Garber was presented with the Presidential Award from the National Association of Private Psychiatric Hospitals. He was the recipient of the Life Fellow Medal from the American Psychiatric Association in 1979.

We would like to congratulate Dr. Garber on his achieve ments and contributions in the field of psychiatry. He is the consummate physician advocate for the mentally ill, working to end discrimination toward this segment of our population Dr. Garber's willingness to work with professionals, community leaders, and government has broken down barrier, and changed negative misconceptions with regard to the mentally ill. At Carrier Foundation, Dr. Garber has helped to shape a center with a wide range of treatment services with an orientation to research, and with innovative physician education.

The Academy of Medicine of New Jersey

In 1911, the need for scientific and intellectual exchange was the catalyst for the founding of The Academy of Medicine of New Jersey. Today, the Academy continues in its efforts to advance the knowledge of New Jersey physicians through educational programs.

The Academy of Medicine of New Jersey, a nonprofit, tax-exempt organization with 2,100 members, is the designated teaching arm of the Medical Society of New Jersey. Approved by the Accreditation Council on Continuing Medical Education to sponsor accredited continuing medical education (CME) courses through 1985, the Academy will present more than 1,200 meetings this year that will be attended by over 90,000 participants. All of the Academy's meetings are approved under Category I through a detailed review process.

As a Fellow in The Academy of Medicine of New Jersey you receive: your choice of a scientific section that represent your specialty and provides a professional forum for the exchange of ideas and accomplishments; an opportunity thater your professional knowledge through the state-wid Speakers Bureau; complete access to the comprehensiv library sources and research services of the George F. Smit Library of Health Sciences at the University of Medicine an Dentistry of New Jersey; special review courses, workshops and miniresidencies; and annual, monthly, and special maings announcing dates, locations, and topics of th Academy's continuing education curriculum.

The Academy of Medicine of New Jersey is centrall located within the state. For further information, ca 609-896-1717.



VOTE. EXERCISE YOUR RIGHT.

NOVEMBER 2, 1982

A Public Service of JEMPAC

Copies of JEMPAC and AMPAC reports are filed with the Federal Election Commission and are available for purchase from the Federal Election Commission, Washington, D.C.

Fenwick and Lautenberg Respond

1. Legislation now is pending before Congress that would clarify that the Federal Trade Commission has no jurisdiction over state-regulated professions, such as lawyers, engineers, physicians, and dentists, or their nonprofit membership associations. The Medical Society of New Jersey and the American Medical Association support efforts to limit the FTC's jurisdiction over these professions. What is your position on this legislation and this issue?

MILLICENT FENWICK, REPUBLICAN

The issue of Federal Trade Commission jurisdiction over professionals is a difficult one. As you know, the states already license and regulate activities in this area and further involvement by the FTC only may add to health costs, which already are too high. On the other hand, I have reservations about special exemptions for any group. In addition, there is evidence that professional groups in some states are discouraging competitive activity among physicians and, as a result, health care costs again are adversely affected. There is a variety of proposals before Congress, but none yet has come before the House for a vote. This is an important and complicated subject, and I plan to study it more carefully before making any final decision.

FRANK LAUTENBERG, DEMOCRAT

I believe that the best regulation is self-regulation and that professionals such as lawyers, engineers, physicians, and dentists have the capacity and the self-interest to regulate their own membership. However, I do not believe that Congress should preclude the FTC from exercising its statutory powers with respect to the services provided to the public by such professionals.

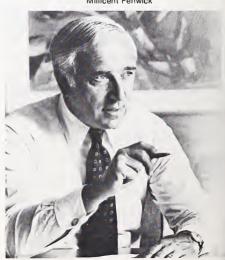
2. Congress is making massive cuts in the Medicare and Medicaid programs, many of which will reduce payments to hospitals and physicians, resulting in increased costs to program beneficiaries. What is your view on these cuts and what alternatives can you suggest to deal with the costs of Medicare and Medicaid?

MILLICENT FENWICK, REPUBLICAN

I am concerned about the changes in Medicaid and Medicare. Although the reductions only have slowed the increase in spending-the federal portion of Medicaid increased from \$17.2 billion in fiscal year 1982 to \$18.2 billion in fiscal year 1983, and Medicare increased from \$49.4 billion in fiscal year 1982 to \$54.16 billion in fiscal year 1983-I am worried about the adverse effects this could have on the health of both the poor and those on fixed incomes. One



Millicent Fenwick



Frank Lautenberg

*Copies of JEMPAC and AMPAC reports are filed with the Feder Election Commission and are available for purchase from Feder Election Commission, Washington, D.C. This item is prepared 1 the Chairman of JEMPAC Committee, Frank Watson, M.D., at A. Ronald Rouse, Director of Special Projects.

aggestion I have for reducing Medicare's costs is to provide the tat deductibles and copayments be paid on a sliding scale of ontributions according to one's income. I realize that the otion of any needs-based testing is a major departure from ocial Security policy, but I do not think that we can ontinue to provide for the poor as we should if we give the time benefits to the rich. However, I am awaiting eagerly the omments and suggestions of the bipartisan Social Security ommission, which is due to report to Congress late this ear.

RANK LAUTENBERG, DEMOCRAT

The Medicare and Medicaid programs, particularly the tter, should be reviewed comprehensively and restructured order to eliminate the current bias in favor of institutional sopposed to home health care and to build in a bias in favor f cost containment which will not diminish the quality of

In addition to restructuring the programmatic elements, I clieve that the funding for these programs must be stabized by ensuring federal funding at a level which will qualize the state's share. Furthermore, states like Newersey should not be penalized for providing full-range ledical services to Medicaid patients.

Most importantly, federal funding for Medicaid and Medare cannot continue to be arbitrarily slashed. I am outraged y the deep cuts made this year by those who, like my ponent, promised not to make any additional reductions social service funding.

Finally, I believe that the federal government should acourage experiments such as the innovative DRG program New Jersey. By rationalizing hospital patient costs based pon the judgment of the medical profession, New Jersey ealth care consumers have saved more than \$300 million nee the inception of this program. My opponent has poosed such hospital cost-containment programs.

3. Congress is reviewing the federal health planning law with view to easing its rigorous mandate on the states. The ledical Society of New Jersey and the American Medical sociation support repeal of the current federal health planning law. Do you believe a health planning program is needed tall? If so, do you think it should be a federal program, a state rogram, or a local community activity?

IILLICENT FENWICK, REPUBLICAN

As a former member of my state planning board, I am princed of the need for health planning. Health care costs e high and we must plan carefully, dividing our resources mong our community health providers. However, I am not princed of the need for federal involvement; I am worried at it may add an extra administrative cost without corsponding benefits.

RANK LAUTENBERG, DEMOCRAT

I believe that it is important to have a rational health care anning process in order to avoid, for example, excess spacity in our hospitals or in the utilization of costly ospital equipment. I believe that this planning process sould be mandated at the federal level but implemented as the local level. A state-wide planning process is necessary but should include the active participation of medical prossionals and members of the local community.

4. Medical care costs are of concern to many people. The Administration and some members of Congress advocate legislation to increase "competition" in health care by encouraging cost consciousness on the part of providers and consumers. What is your view on this legislation? What other ideas do you have that might help control costs?

MILLICENT FENWICK, REPUBLICAN

Controlling rising health costs is a serious problem. Solutions are difficult to find, partly because of the number of contributing factors. Obviously, we must be careful not to provide a higher level of skilled care than is needed. For this reason, I have been a strong proponent of home health care, so that we do not institutionalize patients unnecessarily.

One of the biggest reasons, however, for rapidly escalating costs, especially hospital costs, is our system of third-party payments. The present system has no built-in incentives to prevent an unending increase in the amount of money we spend on our health care. I think there are several possible solutions which deserve further study.

I am encouraged by the experiment in New Jersey, the Diagnostic Related Group (DRG) program. Set fees are established for a given operation, thus eliminating incentives for hospitals to keep patients longer than they need to stay. This would discourage the practice of admitting a patient for the weekend before the operation, for example. All New Jersey hospitals now are participating in this project and the preliminary results seem encouraging.

I would like to see incentives for companies to offer a variety of health plans, allowing employees to select from a number of options, including Health Maintenance Organizations.

FRANK LAUTENBERG, DEMOCRAT

Recent surveys indicate that Americans no longer are willing to accept continually spiraling medical care costs, particularly hospital costs. The DRG program instituted in New Jersey to contain hospital costs should be expanded to include ambulatory care in hospitals. More importantly, this type of hospital cost-containment program, based upon prospective medical judgment, should be instituted nationwide. In addition, I believe that the system of health care insurance must be revised so that there is reimbursement for those numerous procedures which now are provided in hospitals but can be provided in doctors' offices.

I believe, however, that the current administration, including my opponent, has been very shortsighted in trying to save federal health funds by reducing funding for medical research and education and by cutting funds for the inspection of health care facilities. My opponent has voted for the elimination of direct grants to health professional schools, for reductions in research grants, as well as reductions in school loans. Because I believe that furthering the goals of medical science is so important, I established the Lautenberg Center for General and Tumor Immunology in memory of my father who died of cancer at an early age. I would not reduce funding for medical education and research.

As a former member of the Board of Trustees of The Mountainside Hospital in Montclair, I understand how difficult it is to adhere to high standards of care while containing costs. However, rational cost containment, primarily by encouraging proper utilization of medical facilities, must be instituted on a national scale.

Candidates for nutritional therapy..

10,000,000 alcoholics. Ethanol may produce many effects that together bring about nutritional deficiencies, so that alcoholism affects nutrition at many levels.1 25,500,000 geriatric patients. The older patient may have some disorder or socioeconomic problem that can undermine good nutrition.

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Precautions: General: Certain condition

quately treated with B12.

levodopa in the treatment of parkinso ism. Not recommended for patients undergoing such therapy. Adverse Reactions: Adverse reactions

doxine daily can decrease the efficacy

been reported with specific vitamins a



5,000,000 hospital patients with

nfections.⁴ Many are anoectic and may have a markedly educed food intake. Supplements are often provided as a prudent neasure because the vitamin staus of critically ill patients cannot be readily determined.³

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ingesting 1000 or fewer calories per day could be at high risk because this intake may not supply most nutrients in adequate amounts without supplementation.⁵



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patients, has virtually no odor or aftertaste and is economical. And its "Rx only" status means more physician involvement, better patient compliance.

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The Medical Society of New Jersey and Middlesex General lospital, New Brunswick, are recipients of a one-year grant rom the Hunterdon Health Foundation to complement the first ontracted *Lifeline* system in New Jersey. This is the fifth in a eries on the progress of the project during its first year of evelopment.

Previous issues of this newsletter have dealt with descripions of an emergency response system, responses of subcribers using such systems, and summary descriptions of rograms in Middlesex General Hospital and other New ersey hospitals initiating the emergency response system.

This final issue of the newsletter reports on a year-long tudy conducted by Economic Development Services of lighland Park at the request of the Medical Society of New ersey.

The study, implementing a focus-group methodology, xamined the integrability of an emergency response system with other electronic alarm systems; the marketability of uch an emergency response system; and what engineering eatures might improve the efficacy, reliability, and afordability of an emergency response system.

The following brief summation of the results of this study nay serve to guide those who are contemplating initiating an mergency response system or may suggest improvements to hose presently involved in a system.

NTEGRABILITY

Focus-group interviews were used to determine the degree of integrability of emergency response systems with other electronic alarm systems such as fire and burglar alarm systems.

The focus-group, consisting of police chiefs, fire officials, escue squad/EMS personnel, and electronic experts, conduded that emergency response systems could be integrated eadily with 911-type security systems.

At a reasonable cost, a broad marketing of alarm systems yould constitute a valuable service to the security and well-being of senior citizens, the frail, and the handicapped.

However, for many persons, an emergency response sysem in itself could constitute a reasonably adequate security system.

MARKETABILITY

Although an emergency response system is not limited to tenior citizens, it is largely within this population group that he combination of chronic illness, social isolation, limited nobility, and anxiety coexists.

The latest census data indicate that there are 1,227,431 individuals over 60 years of age residing in New Jersey. Of this number, 859,771 residents are over 65 years of age; those over age 60 and living alone account for 266,786 residents.

When Economic Development Services conducted focusgroups with senior citizens, it found that two-thirds of them expressed a personal interest in having an emergency response system. Discussions of a monthly fee of \$20 to \$25 for such a system did not deter 50 percent of those interviewed from remaining firm in their interest in having such a system.

It was estimated that over a three-year period, physicians prescribing an emergency response system could account for 10,000 users of such a system. An additional 13,000 subscribers would initiate obtaining an emergency response system on their own and some 4,000 subscribers would acquire systems through requests of children, friends, building management, or charities.

It is conceivable that once a specific system is selected and demonstrated to be effective, various third-party payers may assume some form of reimbursement to subscribers.

IMPROVABILITY

An analysis of engineering features of an emergency response system produced five recommendations for improvement:

- 1. A more compact microcircuitry design should and can be developed for the home unit resulting in greater reliability and reduced costs.
- 2. The home unit should be equipped with an auxiliary outlet so that strobe lights or other highly visible signals can be displayed outside the residence to aid EMS and rescue squads in finding the distressed patient more quickly.
- Signals that can be differentiated more clearly should be developed so emergency center computers and personnel can distinguish between automatic direct and manual activation of the home unit.
- 4. The "home/away" switch should be placed inconveniently and be so equipped as to emit a visual and auditory signal when in the "away" position. It also should be more difficult to shut the home unit off inadvertently.
- 5. A variety of signals should be created to assure the subscriber that the system is working.

Recommendations for engineering improvements were gained through the expertise of those in the field of electrical engineering and the technical staff who monitored an emergency response system.

FUTURE CONSIDERATIONS

Presently, there are three forms of telecommunication centers in use for emergency response systems: 1) national or state telecommunication centers utilizing WATSline capabilities; 2) local hospital-based telecommunication cen-

TABLE

Monitoring Services

- Amcest*
 P.O. Box 313, Linden, NJ 07036 (800) 492-4051
- American Medical Alert Corporation* Voicemitter System 3265 Lawson Blvd., Oceanside, NY 11572 (516) 536-5850
- Lifeline Systems, Inc.*
 400 Main St., Waltham, MA 02254 (617) 893-2211
- Schick Industries*
 Elm St., North Andover, MA 01845 (617) 685-3600

*Utilize WATSline

ters; and 3) police or rescue squad 911 telecommunicatio systems.

In the WATSline-type systems and local hospital-base systems, the procedure and followup for subscriber activation of the system are the same.

Focus-group interviews with police and fire and rescusquad officials indicated that they neither desired nor fethey were best suited to operate a telecommunication center for a medical emergency response system.

Although a number of hospitals in New Jersey successful have implemented a hospital-based emergency response sy tem, the study recommends that future efforts should t directed toward a state-wide telecommunication cents and/or the utilization of WATSline-type national centers.

The establishment of a national or state WATSline telecommunication center could provide experienced personn who have participated in long-established training program could be less expensive to implement and manage; and coul be available to all physicians and potential subscribers rath than only available to those served by a local hospital.

The study reaffirms the real and perceived need for a emergency response system, and more importantly, presen ideas worth pursuing for future improvement and development of such a system. An added complication...

n the treatment of bacterial bronchitis*



ations and Usage: Cector* (cefactor, Lilly) is indicated in

propriate culture and susceptibility studies should be performed ermine susceptibility of the causative organism to Cector. raindication: Ceclor is contraindicated in patients with n allergy to the cephalosporin group of antibiotics.

Ings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPDRIN INGS: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALUSPUNN DITCS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS AL AND LABORATORY EVIDENCE DF PARTIAL CROSS-IGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, HERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD TIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES ibiotics, including Ceclor, should be administered cautiously natient who has demonstrated some form of allerny

autions: If an allergic reaction to cefacior occurs, the drug 1 be discontinued, and, if necessary, the patient should be d with appropriate agents, e.g., pressor amines, antihistamine

licosteroids. longed use of cefactor may result in the overgrowth of sceptible organisms. Careful observation of the patient is ntection occurs during therapy, appropriate tial. If superintection ares should be taken.

sitive direct Coombs tests have been reported during ent with the cephalosporin antibiotics. In hematolog s or in transfusion cross-matching procedures when sinve direct Coombs tests have been reported during unt with the cephalosporin antibiotics. In hematologic s or in transfusion cross-matching procedures when butin tests are performed on the minor side or in Coomb g of newborns whose mothers have received cephalosporin plics before parturition, it should be recognized that a re Coombs test may be due to the drug

ie Combis test may be due to the drug. Obershould be admissited with caution in the presence of dly impared renal function. Under such a condition, careful I descretion and illaboratory studies should be made se sale dosage may be lower than that usually recommended aresult of admissitation of Ceclor a false-positive reaction coses in the unne may occur. This has been observed with full said for falling's solutions and also with Clinitest* sour not with the stage* (cliusase Enzymato* feet Sting.)

Lully)

gen Prepnancy — Although no teratogenic or antifertility
is were seen in reproduction studies in mice and rats receiving
12 times the maximum human dose or in ferrets given three
the maximum human dose, the safety of this drug for use in
pregnancy has not been established. The benefits of the
n pregnancy has not been established. The benefits of the

rae Reactions: Adverse effects considered related to lot therapy are uncommon and are listed below strointestinal symptoms occur in about 2.5 percent of tandinal distributions of the relations of the relations of the relationship of the relations

with other broad-spectrum antibiotics, colitis, including rare ices of pseudomembranous colitis, has been reported in ction with therapy with Ceclor. we been reported in about 1.5

Some ampicillin-resistant strains of Haemophilus influenzae - a recognized complication of bacterial bronchitis*-are sensitive to treatment with Ceclor.1-6

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus <u>pneumoniae</u>, <u>H. influenzae</u>, <u>S. pyogenes</u> (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.7



percent of patients and include morbilitionm eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less han 1 in 200 patients. Cases of serum sciences like reactions erythema multiforme of the above shin manifestations accompanied representations of the properties of the science of the control of the these reactions are apparently face to hypersenticitivity and have usually occurred during or following a second course of therapy with Cector' (cafeoric) such reactions have been responded to the control of the control of the control of the control of the course of the desired in the control of the control of the few days after cessation of the rapy floor control of the patients of the control of the cases of anaphysias have been reported. Fail of which have cocurred in patients with a history of pencilian allergy.

occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia
(1 in 50 patients) and genital pruritus or vaginitis (less than 1 in

To patients.

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are fisted below to serve as alerting information for the physician. information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline

Hegatic — Slight elevations in SQU1, SQF1, or alkaline phosphatase values (1 m 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 m 40).

Henal — Slight elevations in 8UN or serum creatinine (less than

1 in 500) or abnormal urinafysis (less than 1 in 200).

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either S. pneumoniae or H. influenzae * Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicifinallergic patients.

nicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information. References

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc. Carolina, Puerto Rico 00630

Percutaneous Radiofrequency Rhizotomy for Spasticity

ABBOTT J. KRIEGER, M.D., and ANNE S. CROWDER, R.N., East Orange*

The results of 25 percutaneous radiofrequency rhizotomies (PRR) for spasticity in 18 quadriplegic and paraplegic patients are described. PRR, a relatively noninvasive technique, provided periods of improved functional activity lasting from 2 to 20 months in 10 out of 18 patients. PRR can be repeated if the effects begin to wear off. Its selectivity permits sparing of residual bowel, bladder, and sexual function.

pasticity, a movement disorder, affects approximately six million people in this country; 50 percent of these people suffer as a result of head or spinal cord injuries. The prevalence and the disabling effects of the disorder, including disruption of activities of daily living (ADL), increased dependency, and secondary medical management problems, require a concerted effort to understand and treat this phenomenon. The treatment may be multimodal and must provide some relief for the daily misery of the patient.

Movement is thought to involve a number of cortical and brain stem mechanisms which modulate low-level postural reflexes. Spasticity is a release phenomenon in which a loss of inhibitory mechanisms permits uncontrolled activity in these reflexes. The clinical picture that emerges depends on which inhibitory factors have been lost. The variety of patterns is evidence that spasticity is a group of neurophysiological disorders rather than a single entity; only some of the clinical phenomena may be present in each patient. The features may include exaggerated tonic** and phasic*** stretch reflexes, monosynaptic extensor reflexes, polysynaptic flexor reflexes, and clonus. While all are considered part of the upper motor neuron syndrome, they are not synonymous with it.3 There are several identifiable patterns, such as those seen in cerebral hemiplegia, cerebral palsy, brain stem disorders, and chronic spinal disease or trauma. The common feature in these patterns is an increased resistance to passive movement and radiation of deep tendon reflexes.

TECHNIQUE

Selective surgical interruption of posterior roots first wa carried out in 1889. 6.5 Since the open surgical technique wa limited to patients who were able to withstand general anesthesia, efforts were made to develop a less traumation rhizotomy technique.

Electrothermocoagulation first was applied to th gasserian ganglion for trigeminal neuralgia in the 1950s. I was abandoned because of the high complication rate due to the uncontrolled effect of the diathermy current. In 1965 Rosomoff introduced radiofrequency electrothermocoagulation for cordotomy. Sweet adapted this technique for the trigeminal ganglion. He and others have shown that it i possible to alleviate pain while preserving proprioception and motor function in the trigeminal nerve.

Percutaneous radiofrequency spinal rhizotomy was carried out in 1971 by Dr. Uematsu.§ This technique is relativel, simple and less invasive than surgical open rhizotomy. It success depends upon fluoroscopy with image intensification for precise stereotaxic introduction of the probe under loca anesthesia into the intervertebral foramen. Careful observa

^{*}From the sections of Neurosurgery, Veterans Administration Mecical Center, East Orange, and UMDNJ-New Jersey Medical Schoo Newark. Correspondence may be addressed to Dr. Krieger, Net rosurgery Section, Room 11-82, Veterans Administration Medical Center, East Orange, NJ 07019.

^{**}Clasp-knife phenomenon ***Deep tendon reflexes

on of the response to electrical stimulation and the ssessment of sensory and motor functions during the proedure are essential to avoid undesirable complications.

From a technical point of view, needle electrodes can be laced in any nerve root in the spine. The Figure is an xample of such needle placement in the lumbar spine. Xays in both the AP and lateral projection confirm the natomical position. Further confirmation is obtained by lectrical stimulation. Typically, paresthesias occur at 2 to 5 ulses/sec at a voltage of 0.2 to 0.5 volts. Lesions are made t 80° for two minutes. In paralyzed patients, stimulation is f no value. In this situation, the selected lesions often are nade as functional testing is performed.

ESULTS

A total of 18 people, 11 with quadriplegia and 7 with araplegia, underwent percutaneous radiofrequency hizotomy to reduce spasticity. Their problems included ersistent decubitus ulcers, contractures secondary to pasticity, difficulty maintaining personal hygiene and skin itegrity, inability to maintain position in bed and wheelhair, and safety during transfer activities. Their ill effects revented the patients from achieving the maximum possible evel of independence in ADL and increased the burden of he caretaker. All were taking the maximum tolerated effecive dose of antispasm medication and a combination of aclofen*, dantrolene sodium**, and diazepam*** without xperiencing the desired level of relief.

Spinal cord injury was the underlying condition producing he spasticity; in one case, spastic paraplegia resulted from emorrhage into the spinal cord.

The 17 men and 1 woman, ranging in age from 20 to 61 ears of age, had a total of 25 rhizotomies—23 lumbar and 2 ervical. A reduction in spasticity, that resulted in recognized unctional gains in one or more areas of ADL, occurred in 10 patients. To date, the periods of improvement have lasted rom 2 to 20 months. Two of the quadriplegic patients inderwent both lumbar and cervical rhizotomies which esulted in marked improvement in ADL for one patient Case 2) and in a brief nonfunctional reduction in spasticity or the other patient.

A group of five people experienced only short-term relief, vith the time period varying from a few hours to three weeks. ncluded in this latter group is one individual in whom pasticity was objectively reduced without concomitant improvement in ADL.

No followup data were available on the three remaining ndividuals; one patient was lost to followup and two patients died of unrelated causes.

Of the five people who underwent a second lumbar hizotomy, one patient elected to have the second procedure when the effects of the first began to diminish after approxmately 15 months. The remaining four people experienced imited periods of relief of less than three weeks the first time and elected to have a second procedure in the hope of obtaining longer-lasting reduction in spasticity. Of this group, one patient attained the desired result, two patients iid not, and one patient seemed to be successful but was lost o followup before he could be evaluated. Several others who might have benefited from a second procedure elected not to nave it.

In those rhizotomies that resulted in long-term relief, the



Figure-Lateral lumbar spine x-ray showing placement of the needles in the intervertebral foramen. The final placement is the lower needle which is in the upper third of the intervertebral foramen. The other needles need further adjustment before the lesion is made

desired functional goals were achieved (Table 3). Patients reported healing of ulcers and greater safety and ease in performing various activities of daily living.

For one paraplegic, the outcome led to wheelchair independence at home. For one quadriplegic, the outcome led to a reintroduction into community life by making it possible for him to sit safely in a recently purchased van; he now teaches Sunday school, visits friends, and takes his children on outings. In addition, his children now are able to participate in his care. This is viewed positively by the family for it relieves the wife of total responsibility for care and it brings the family closer together. In another case, cervical and lumbar PRRs and subsequent surgical release of contractures permitted seating in an electric wheelchair and made possible independent wheelchair transportation and the acquisition of self-feeding skills with the use of assistive devices (Case 2). In all other cases, the major gain was easing the task of the caretaker in one or more aspects of ADL management.

Three representative patients are described below. Table 4 summarizes all the cases.

CASE 1

A 39-year-old quadriplegic male with a lesion at the level of C₅ markedly had increased lower extremity tone, marked flexor spasm, and mild flexion contractures of hips and knees bilaterally. He underwent bilateral PRR at levels L1-4 to ease the performance of personal care and to permit repair of a decubitus ulcer. Initially, moderate bilateral reduction of spasms and muscle tone was reported by the patient and his

^{*}Lioresal® **Dantrium®

^{**}Valium®

Percutane	ous Radiofrequency Rhizotom	ıy
Diagnosis	Quadriplegia Paraplegia	11 7
Sex	Women Men	1 17
Age	20 to 60 years	
PRR level	Cervical Lumbar	2 23
	Cervical and Lumbar	2
Repeat PRR	Cervical Lumbar	0 5

TABLE 2

Evaluation	PRR Results Duration	Patients
Good Poor Unknown* *Deceased: 2 Lost to followup: 1	3 weeks to 20 months < 3 weeks	10 5 3

family and this greatly eased the management of all activities of daily living (ADL). Relief persisted for 15 months, when tone and spasm began to increase and impair the functional gains acquired from the first procedure. A second rhizotomy produced notable relief. The pharmacological management, utilizing diazepam and dantrolene sodium, initiated prior to the procedure, has been maintained.

CASE 2

A 56-year-old male with incomplete quadriplegia at the level of C₅₋₆ had marked increase in upper and lower extremity muscle tone, severe flexor spasm, and bilateral 40° hip and 30° knee contractures. He underwent bilateral lumbar PRR to permit surgical release of his contractures and to facilitate nursing care. Nursing and physical therapy have been facilitated greatly, although the patient perceived the outcome as minimal. Reduction of flexor and adductor spasm, combined with the leg extension gained by surgical release of hip and knee contractures, allows the patient to sit in an electric wheelchair which he operates with a mouth stick; this enables him to travel at will throughout the facility in which he presently lives. Skin care and perineal hygiene also became easier to manage following release of the contractures. A subsequent unilateral cervical rhizotomy allows him to feed himself with the use of assistive devices.

CASE 3

A 34-year-old quadriplegic male with a $C_{5,6}$ lesion had bilateral increase in lower extremity muscle tone and flexor and extensor spasms that awakened him at night and prevented independent wheelchair sliding board transfers. He underwent bilateral PRR at levels L1-5 following a preparatory reduction in his diazepam dosage. There was substantial and immediate reduction in spasticity. Spasmolytic medications subsequently were discontinued and he returned to the referring facility where, over a period of a week, a regression to the previous clinical state occurred necessitating reinstitution of diazepam. The combination of drug-induced drowsiness and recurrence of the previous level of spasticity interfered markedly with his rehabilitation program. Two weeks later, a second procedure was done

TABLE 3

Functional Results of Percutaneous Radiofrequency
Rhizotomy*

Greater ease in bathing and dressing

ı	areater case in batting and dressing	U
ı	Easier access for perineal care	9
ı	Bladder regimen—easier management/improved	
I	method	4
ı	Bowel regime—easier management/improved method	1
į		7
ı	More effective skin care	8
ı	Facilitation of decubitis ulcer repair and healing	5
ı	Self-feeding	1
i	Easier turning	9
ı	Easier position in bed or chair	9
ı	Participation of children in care	1
ı	Elimination of need for Hoyer lift	1
j	Reduction in number of people required for transfer	2
	Independent transfer	2
	Independent wheelchair ambulation	2
	Wheelchair independence	1
	Longer, uninterrupted periods of sleep	4
	Surgical release of contractures	2
1	Lower extremity cosmesis	2
1	Increased socialization	2
1	Participation in community activities	2

Facilitation of physical and occupational therapy

Resumption of marital relationship
*Source: Interview with patient or caretaker.

with a 50 percent immediate reduction in muscle tone an spasm. On this occasion, the medication regimen was main tained throughout. The patient completed his rehabilitatio program and moved to another state where he lives i specially adapted housing. He reports that there has bee some return of spasticity but it does not interfere with ADI

DISCUSSION

Evaluating the results of percutaneous radiofrequency rhizotomy (PRR) was difficult due to the varying perception and expectations of the patients. The degree of reduction is spasticity and the nature of the improvement in activities of daily living following PRR was relative and individual. Some patients reported substantial improvement in functional activities while retaining a significant amount of spasticity Others perceived little functional improvement and continued to complain of many of the preprocedure problem despite objective reduction of spasticity. This would seem to

"Evaluating the results of percutaneous radiofrequency rhizotomy (PRR) was difficult due to the varying perceptions and expectations of the patients."

indicate the interplay of a number of mechanisms, not all o which have been explained; it is consistent with Denny-Brown's observation that since spasticity is a complex phenomenon, a consistent response to a treatment modality cannot be expected.² The role subjective complaints play ir providing secondary gain also should be considered ir evaluating the success or failure of PRR.

Among those who perceived failure were two patients in whom pulling sensations in the hip, groin, or thigh persisted and led the individuals to limit activities of daily living. Since

TABLE 4

Summary of Cases Length of Time of Functional Improvement

	of		
Age	Lesion	Procedure(s)	Time Span
41	T ₃	L1-3 Bilat.	1 week
		L1-4 Bilat.	unknown**
48	C ₆	L1-3 Bilat.	20 months
39	C ₅	L1-4 Bilat. L1-4 Bilat.	15 months 9 months
37	C ₇	L1-3 Right	2 weeks
21	T ₆	L1-4 Bilat.	11 months
41	C ₄₋₅	L1-4 Right	Deceased
20	C ₅	L1-4 Bilat.	12 months
56	C ₅₋₆	L1-4 Bilat.	12 months
		C ₅₋₆ Right	9 months
52	C ₅₋₆	L1-4 Left L1	11 months* 0
58	T ₅	L1-4 Bilat.	Deceased
54	C ₃₋₇	L1-4 Bilat.	0
		C ₄₋₅ Left	3 weeks
34	C ₅₋₆	L1-4 Bilat. L1-5 Bilat.	1 week 10 months
36	C ₇	L1-4 Bilat.	6 hours
30	0,	L1-4 Bilat.	3 weeks
31	C ₅₋₆	L1-4 Bilat.	10 months
24	T ₃₋₄	L1-4 Bilat.	7 months
61	T ₉₋₁₂	L1-3 Bilat.	3 to 4 days
58	T ₁₀	L1-4 Bilat.	0
54	T ₄	L1-4 Bilat.	4 days
			·

*Objective decrease in muscle tone without functional improvement. *Lost to followup.

asticity had been reduced, the possibility arises that these

ienomena were paresthesias was considered. Our experience seemed to indicate that PRR was more fective in reducing muscle tone than it was in reducing asm. While the data could not be evaluated for this riable, it is consistent with what we know of the nature of exor spasms, which are polysynaptic and can be triggered om any level. A stimulus at any level frequently precipitates mass flexor response. Evaluation of a trial with baclofen, a asmolytic agent unrelated to other available muscle relaxits, might be useful since data indicate that baclofen articularly is effective against flexor spasm.9

Since spasticity frequently is more severe in incomplete sions, future work might examine this variable in relation the outcome of PRR.

As this series progressed, the possibility arose that a good sult from PRR might permit decreasing or discontinuing tispasticity medications that produce the deleterious side fects because of the large doses needed. The desired effect as not achieved. If any conclusion can be drawn from this oncerning a relationship between these modalities, it is only at if PRR is going to result in functional decrease in pasticity, it is more likely to occur in the presence of a aximally effective drug regimen.

PRR is less invasive than surgery. In addition, should the atient have normal or residual sensation, only local nesthesia is required. This spares the patient the risks of major surgery and general anesthesia entailed by open surgical exposure. Long-term hospitalization with its concomitant expense and discomfort is not necessary as the procedure can be done during an overnight stay if admission is from home or during a same-day admission if coming from another hospital. This arrangement has the advantage of reassuring the patient, who usually is concerned about the ability of the hospital staff to manage the complex care regimen necessitated by his disability.

Selectivity is another advantage of PRR. By making lesions in nerves rather than in the spinal cord, interference with spinal cord pathways is avoided. This permits the neurosurgeon to spare residual bladder, bowel, and sexual function.

SUMMARY

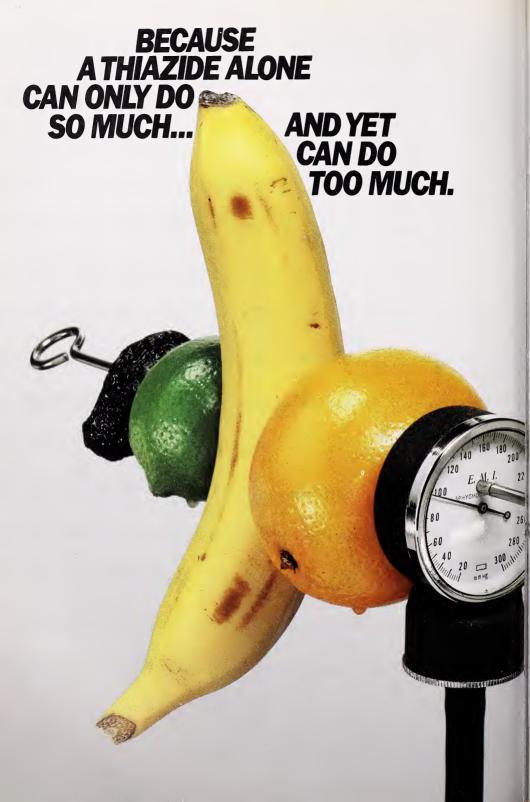
Percutaneous radiofrequency rhizotomy is a relatively simple and safe procedure that is effective in reducing spasticity in some patients for periods of up to 20 months. Although only one of several modalities, PRR may be more effective when used in conjunction with medication. It is less invasive than open surgical rhizotomy and can be repeated if recurrence of spasticity interferes with ADL.

Technical success depends upon the availability of fluoroscopy for precise stereotaxic introduction of the probe into the intervertebral foramen. Careful observation of the response to electrical stimulation and the assessment of sensory and motor function during the entire procedure are essential to avoid undesirable complications. To date, there have been no complications. On a theoretical basis, however, infection or hematoma could occur. Additionally, in patients with intact or residual motor function, some motor weakness might be produced in the distribution of the specific nerve root. Success of the procedure should be evaluated objectively in relation to sustained improvement in ADL and ease of management.

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CONTRAINDICATIONS: Propranolol hydrochloride (INDERAL®): Propranolol hydro-

warning)

CONTRAINDICATIONS: Propranolol hydrochloride (INDERAL*): Propranolol hydrochloride is contraindicated in 1) bronchial asthma, 2) allerge rhints during the pollen season, 3) sinus bradycardia and greater than first degree block, 4) cardiogenic shock, 5) right ventricular failure secondary to pulmonary hypertension, 5) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol, 7) in patients on adrenergic-augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs. Hydrochlorichlazide is continandicated in patients with anuria or hydrochlorichlazide; hydrochlorichlazide is continandicated in patients with anuria or hydranilorists. Propranolol hydrochloride (INDERAL*): CARDIAC FAILURE. Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta blockade always carries the potential hazard of turther depressing myocardial contractifity and precipitating cardiac failure. Propranolol acts selectively without abolishing the indropic action of digitalis in the heart muscle (ie. I that of supporting the strength of myocardial contractions). In patients already receiving digitalis, the positive inotropic action of digitalis may be reduced by propranolol's negative inotropic effect. The effects of propranolol and digitalis are additive in depressing AV conduction. In PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE, continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure. In rae instances, this has been observed during propranolol therapy Therefore, at the first sign or symptom of impending cardiac failure, patients should be failure, despite adequate digitalization and durretic therapy, propranolol therapy should be immediately withdrawn, b) if tachyarrhythma is being controlled, patients should be minimized on combined therapy and the patient closely followed until threat of card

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of propranoid in therapy. Therefore, when discontinuance of propranoid is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranoid is prescribed for angina pectors, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If propranoid therapy is interrupted and exacerbation of angina occurs, it usually is advisable to enistitute propranoid therapy and take other measures appropriate for the manageneed, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given propranoid for other indications.

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use have not been adequately appraised. Special consideration should be given to propranolis potential for aggravating congestive heart failure. Propranoloi may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a failse impression of improvement. Therefore, abrupt withdrawal of propranoloi may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid sform. This is another reason for withdrawing propranoloid slowly. Propranoloid son distort thyroid function

tests. IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been in PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after proprianoid, the tachycardia was replaced by a severe bradycar-dia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 miles.

tion of beta receptors

tion of beta receptors.

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its betaadrenergic blocking activity, propranoloi may prevent the appearance of premonitory signs
and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is especially important to keep on mind in patients with labile diabetes. Hypoglycemic attacks may
be accompanied by a precipious elevation of blood pressure.

Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease. In
patients with renal disease, thiazides may precipiotale azotemia, in patients with impaired
renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or
progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

cipitate hepatic coma
Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentia

Inlazioes may add to or potentiate the action of other animypertensive usings. Potential too occurs with ganglionic or peripheral adrenergic blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma. The possibility of exacerbation or activation of systemic lupus erythematosus has been

reported.

VSE IN PREGNANCY: Propranolol hydrochloride (INDERAL*): The sale use of propranolol in human pregnancy has not been established. Use of any drug in pregnancy or
women of childbearing oberfulal requires that the possible risk to mother and/or fetus be
weighed against the expected therapeutic benefit. Embryotoxic effects have been seen in

animal studies at doses about 10 times the maximum recommended human dose. **Hydrochlorothiazide:** Thiazides cross the placental barrier and appear in cord blood

Invalides in pregnant women requires that the articipated benefit be weighed against possible hazards to the letus. These hazards include fetal or neonatal joundice thrombocytopenia, and possibly other adverse reactions which have occurred in the an Nursing Mothers: Thiazides appear in breast milk. If the use of the drug is deemed elsential the patient should stop nursing PRECAUTIONS: Propranolol hydrochloride (INDERAL*): Patients receiving catech

PRECAUTIONS: Propranolal hydrochloride (INDERAL*): Patients receiving catech armine-depleting drugs such as reserpine should be closely observed if propranolal is; ministered. The added catecholamine blocking action of this drug may then produce a cessive reduction of the resting sympathetic nervous activity Occasionally, the phar cologic activity of propranolal may produce hypotension and/or marked bradycardar. As with any new drug given over prolinged periods, laboratory parameters should be added to the regular intervals. The drug should be used with caution in patients within most of the propression of the pro

Hydrochlorothiazide: Periodic determination of serum electrolytes to detect possible electrolyte michalance should be performed at appropriate intervals. All patients receiving thiazide therapy should be observed for clinical signs of fluid olelectrolyte mobalance, namely hyponatremia, hypochloremic alkalosis, and hypoxaler Serum and urine electrolyte determinations are particularly important when the patient vomining excessively or receiving parenteral fluids. Medication such as digitals mayal influence serum electrolytes. Warning signs, irrespective of cause are dryness of mountained to the service of the servic

sea and vorniting
Hypokalemia may develop, especially with brisk duresis, when severe cirrhosis is
present or during concomitant use of corticosteroids or ACTH
interference with adequate or all electrolyte intake will also contribute to hypokalemia
pokalemia can sensitize or exaggerate the response of the heart to the toxic effects of
itsis (e.g., increased ventricular irriability). Hypokalemia may be avoided or treated by
of potassium supplements such as foods with a high potassium content.
Any chloride deficit is generally mild, and usually does not require specific treatmen
cept under extraordinary circumstances (as in liver or renal disease). Dilutional hypori
ma may occur in edematous patients in hot weather, appropriate therapy is water rest
tion, rather than administration of salt, except in rare instances when the hyponalremia
lite-threatening in actual salt depletion, appropriate replacement is the therapy of the
Hyperuricema may occur or frank gout may be precipitated in certain patients rece
thistagide therapy.

thazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchang blabetic mellitus which has been latent may become manifest during thiazide adminis

Diabetes mellitus which has been latent may become manifest during thiazide adminst tin

Tha anthypertensive effects of the drug may be enhanced in the postsympathector patient. Thiazides may decrease anterial responsiveness to norepinephrine This dirnt tion is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal impariment becomes evident, consider withholding or disording the progressive renal impariment becomes evident, consider withholding or disording the progressive renal impariment becomes evident, consider withholding or disording the progressive renal impariment becomes evident, consider withholding or disording the progressive renal impariment becomes evident, consider withholding or disording the progressive renal threat and hypothosphalerina have been observed in a few patier on prolonged thiazide therapy. The common complications of hyperparathyroidisms urenal thriasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

ADVERSE REACTIONS: Progranolof hydrochloride (INDEFAL®): Cardiovascular bradycardia, congestive heart failure, intensification of AV block; hypotension, parestrol hands, arterial insufficiency usually of the Raynaud type, thrombocytopenic purpor Central Nervous System lightheadedness, mental depression manifested by insort lassitude, weakness, fatigue; reversible mental depression progressing to catalonia, vidisturbances, hallucinations, an acute reversible syndrome characterized by disortent for time and place, short term memory loss, emotional albility, slightly clouded sensorit and decreased performance on neuropsychometrics.

and decreased performance on neuropsychometric Gastrointestrail rausea, vomiting, epigastric distress, abdominal cramping, diarrh constipation, mesenteric arterial thrombosis, ischemic colitis. Allergic; pharyoglis and agranulocytosis, erythematous rash, fever combined withing and sore throat, laryngospasm and respiratory distress Respiratory: bronchospasm. Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic pussed largents; reversible allongeria. Curdomic portageness reparations involving thesis.

Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic p Miscellaneous: reversible alopecia. Cuclionumoccutaneous reactions involving fres serous membranes and conjunctivae reported for a beta blocker (practiolo) haveno Conclusively associated with propramolo. Climical Laboratory fest Frindings. Elevated blood urea evest in patients with severe disease, elevated serum transaminase, alikaline phosphatase, lactate dehydrogenase; delegate elevated serum transaminase, alikaline phosphatase, lactate dehydrogenase; cramping control and control and control agrantic memory and control cramping controls.

titis sialadenitis

tittis, sialadentitis. Central Nervous System. dizziness, vertigo, paresthesias, headache, xanthopsia. Hematologic: leukopenia, agranulocytosis, thrombocytopenia, apiastic anemia. Cardiovascular orthostatic hypotension (may be aggravated by alcohol, barbtural-narcolics). Hypersensitivity purpura, photosensitivity, rash, urticaria, necrotizing anglitis (va

rhypersensimity purpura, protosensimity, rash, stricara, nectorizing anginis vasc-cutaneous vasculitis), fever, respiratory olistress including pneumonitis, anaphylactic f Other hyperglycemia, glycosuna, hyperuncemia, muscle spasm, weakness, restle ness, transient blurred visor.

ness, it ansient blurred vision.
Whenever adverse reactions are moderate or severe, thiazide dosage should be re duced or therapy withdrawn.
HOW SUPPLIED: —Each hexagonal-shaped, off-white, scored INDERIDE 40/25 table embossed with an 1° and imprinted with "INDERIDE 40/25", contains 40 mg professor, hydrochionder (INDERIAL") and 5 mg hydrochionder in bottles of 100 (NDC 0046-0484-9). Also in unit dose package of 100 (NDC 0046-0484-99).

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Suicide: Trends in New Jersey

DAVID LESTER, Ph.D., Pomona*

Suicide continues to be a major problem in the United States, where 5,000 people kill themselves and a quarter of a million people attempt uicide every year. The toll from suicide continues despite efforts at uicide prevention.

ur failure to prevent suicide in the United States contrasts sharply with the experience in the United ingdom, which has witnessed a drop of about one-third in e suicide rate. Suicidologists dispute the causes for this op in the British suicide rate; some attribute it to the tional suicide prevention organization (The Samaritans), hile others attribute it to the detoxification of domestic gas. he detoxification of domestic gas has made it more fficult to kill oneself with domestic gas since the carbon onoxide now is removed prior to delivery to the customer.) There is some evidence that restrictions on the methods for icide do have a preventive effect. In studies conducted in e United States, Lester and Murrell found that states with rict gun control laws do not experience a decrease in micides but rather a decrease in suicide, especially by gun.1 seems possible that people have a preferred method for icide. Interfering with purchasing or obtaining the prerred means for suicide delays action. By the time the eferred means has been obtained, the suicidal crisis may be

Ten years ago, I presented data on suicide in New Jersey in *I Journal*.² This paper examines trends in the suicide rate New Jersey during the 1970s.

OMPLETED SUICIDE IN NEW JERSEY

The number of completed suicides** in New Jersey and e rate are shown in Table 1. The rate has remained

relatively stable over the 18-year period from 1963 to 1980, with a median rate of 7.8.

The median suicide rate for two three-year periods (1968 to 1970 and 1978 to 1980) are shown for each county in Table 2. There is some consistency in the rates of each county. For example, Cumberland, Hunterdon, and Ocean counties had high rates in both periods. But there are large variations and the overall association between the rates in the two periods is quite small. (The correlation coefficient is 0.27.)

The sex distribution and the distribution of completed suicides in New Jersey for 1970 and 1980 are shown in Table 3. From 1970 to 1980, the proportion of males increased significantly ($X^2 = 9.73$, df = 1, p<0.01). Furthermore, the age distribution changed. In 1980, there were proportionately fewer suicides aged 45 to 64 and proportionately more aged 15 to 24 ($X^2 = 17.29$, df = 2, p<0.001). These changes are not simply idiosyncracies of the two years chosen; a comparison of 1979 to 1969 shows identical results.

CONCLUSION

Although the suicide rate in New Jersey has remained reasonably constant from 1963 to 1980, completed suicides in

^{*}David Lester, Ph.D., is Professor of Psychology at Stockton State College, Pomona. Correspondence may be addressed to Dr. Lester, Stockton State College, Pomona, NJ 08240.

^{**}These data were obtained with the assistance of Ms. Phyllis Spych, New Jersey Department of Health.

TABLE 1
Deaths from Suicide in New Jersey

	Douth	o nom outdout m wen	00,009
	Year	Number	Rate
	1963	598	9.2
	1964	516	7.8
	1965	586	8.6
	1966	548	7.9
	1967	505	7.1
	1968	538	7.5
	1969	591	8.1
	1970	487	6.8
	1971	570	7.8
	1972	617	8.4
	1973	609	8.2
	1974	572	7.7
	1975	612	8.2
	1976	577	7.8
	1977	643	8.7
	1978	563	7.7
	1979	572	7.8
	1980	576	7.8
٥r	100 000 resi	idents per vear	

New Jersey in 1980 consist proportionately more of males and of those aged 15 to 24 as compared to a decade earlier. Physicians should be alert for signs of depression and actingout in teenagers and young adults and especially should be wary of prescribing too large a quantity of lethal medications to such patients.

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TABLE 2
Deaths from Suicide in New Jersey by County

		, ,
County	Median Rate 1968 to 1970	Median Rate
		1978 to 1980
Atlantic	8.5	7.8
Bergen	6.6	8.1
Burlington	8.4	7.9
Camden	9.1	6.6
Cape May	9.1	3.9
Cumberland	10.2	10.0
Essex	9.2	7.1
Gloucester	5.8	8.0
Hudson	5.1	6.3
Hunterdon	12.0	10.3
Mercer	7.9	8.2
Middlesex	7.0	7.2
Monmouth	7.4	9.2
Morris	8.3	9.6
Ocean	11.9	10.4
Passaic	5.6	7.0
Salem	8.3	6.5
Somerset	6.5	8.4
Sussex	11.5	6.0
Union	5.3	6.5
Warren	8.1	11.9

TABLE 3 Deaths from Suicide by Sex and Age in New Jersey

		Percentag	ge By Sex	(
Year	M	ale	Fen	nale	
1970	7:	2%	28	1%	
1980	80	0%	20	%	
Year		Perc	entage By	Age	
	5 to 14	15 to 24	25 to 44	45 to 64	65+
1970	0.4%	13%	27%	39%	21%
1980	0.5%	23%	30%	28%	19%

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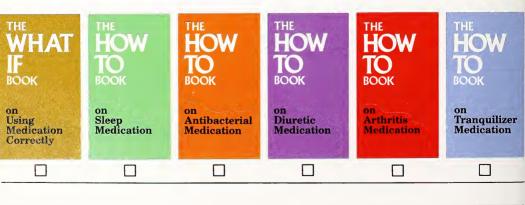
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Use of a Type and Screen Program in Hospital Blood Bank Inventory Control

'REDERICK MUSCHENHEIM, M.D., Denville*

Reduction of the amount of crossmatching is a major element of nventory control in hospital transfusion services. A Type and Screen rogram and Recommended Surgical Blood Order Schedule were used o reduce crossmatching; this resulted in a decrease in outdating of lood, in the workload in the laboratory, and in a more efficient use of donated blood.

uman blood for transfusion is a valuable and scarce resource. As the demand for blood increases, it be-

In 1977, J.B. Henry et al. noted that many surgical occdures call for crossmatched blood; yet, the blood most never is used and is unavailable to other patients, hese authors proposed that for such procedures it is better identify the patient's blood type and to screen for unexceted antibodies. In the occasional instance where blood ay be needed, a crossmatch can be done rapidly and blood in be made available for transfusion in adequate time. This pe and screen concept has been adopted with varying thusiasm in different hospitals throughout the United ates.

In 1980, we began a Type and Screen program because of cessive blood wastage at our 263-bed community hospital hich receives most of its blood from New Jersey Blood rivices of the American Red Cross. At this time, the erage rate of discarding unused blood at the end of its 21-4y shelf life was 10 to 15 percent of units received. It had been felt necessary to keep adequate supplies on hand in case temergencies. Ordering patterns for standby units of blood uring surgery contributed to the chronic oversupply.

The Type and Screen program resulted in a marked duction in blood wastage. Our results are reported to ustrate the benefits of a Type and Screen program, to

describe the program's relationship to recommendations for preoperative blood orders, and to emphasize the role of these policies in an overall transfusion service inventory control program.

This report will discuss the theoretical background, a description of the steps taken at our hospital, and an analysis of the results achieved by the program.

THEORETICAL BACKGROUND

In any hospital, there is a number of sources of blood wastage that submit to control in varying degrees. Wastage through inefficient operation, such as delayed return of unused units from nursing stations and failure of the intravenous infusion system, must be controlled by improved coordination with the nursing staff. Wastage through inappropriate use by physicians, such as over-transfusion and single unit transfusions, must be approached through education and auditing functions.

Blood outdating is a major potential source of wastage, especially in smaller institutions, and must be handled through inventory control programs. A number of approaches to inventory control have been reviewed by Cohen and Pierskalla who present an interesting approach of their

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own.2 These authors suggest that there is a cost involved in outdating blood, namely the cost of the unit of blood. There also is a cost incurred in running short of blood, including telephone calls, time lost in obtaining and processing a new unit, and the cost of transportation for emergency delivery.

As inventory increases, shortages decrease but outdates increase. The problem is to minimize the combined cost of shortage and outdate. There is, therefore, an optimal shelf quantity, S, for each blood type that can be expressed by the formula:

 $S = A (d_m)^a (p)^b (D)^c$.

= the mean daily demand for the type.

 $_{D}^{d}$ = the crossmatch release period.

= the ratio of transfusions to crossmatches (T/CM). = the average age of the units received.

The formula can be solved using assumptions about the ratio of the cost of shortage and cost of outdate and assuming a policy that the first unit received is the first unit used. Using data from several blood banks in Chicago, the authors found

 $= 6.03 (d_m)^{.7604} (p)^{.1216} (D)^{.0677}$.

Several conclusions emerge from the formula. One is that transfusion/crossmatch ratio is a key factor in inventory reduction. Once blood is crossmatched, it must be held for a single recipient only and cannot be used for another patient if need arises. This limits flexibility in using blood inventory.

Another conclusion is that as d_m increases, a less than proportional increase in order quantity is required. If use doubles, inventory need only increases by two-thirds. However, blood banks may be tempted to double inventory to meet demand, resulting in wastage.

A third conclusion is that the effect of increased levels on reduction of shortage is slight, but increased inventory has a major effect on outdating.

Finally, the greater the average age of units received (A), the more outdating occurs. This becomes even more significant as mean daily demand for a type of blood decreases to less than two units per day. (The finding means that for most smaller blood banks, the blood received should be fresh and replaced frequently. Unassigned old units must be sent to larger institutions where greater demand will ensure utilization.)

One other important parameter is the crossmatch release period (D). It has been customary to hold crossmatched blood postoperatively for 48 hours before releasing it to the unassigned pool. A certain amount of wastage can be prevented simply by reducing this period to 24 hours.

If we accept the conclusion from the formula that an important parameter of inventory control is the transfusion/crossmatch ratio, it follows that reasonable policies must be developed for the ordering of crossmatches in the hospital. This is true for standby crossmatch orders for patients in surgery. It becomes necessary to eliminate crossmatching of excessive amounts of blood or crossmatching for procedures for which blood rarely or never is used, and this must be considered an integral part of the inventory program as a whole.

The use of Type and Screen programs in which blood is used rarely has been growing gradually.1 For many other procedures, transfusion is not infrequent. For these, many hospitals have developed a Maximal Surgical Blood Order Schedule listing the maximum number of units to be crossmatched for any type of case. The Type and Screen program and Maximal Surgical Blood Order Schedule offer an opportunity to reduce the number of crossmatches done in the hospital.

STEPS TAKEN

The problem was attacked in coordination with the Transfusion Committee of the medical staff, with the objective of developing a consensus through the Committee, rather than imposing a policy.

The first step at St. Clare's Hospital was to review surgical transfusion practice at the hospital. The actual frequency of transfusions and the numbers of units given in each case during 1979 was determined for each type of procedure commonly done in the hospital, using the International Classification of Disease³ as the basis of classifying the procedures.

At the same time, we reviewed Maximal Surgical Blood Order Schedules from several other hospitals, together with the recommendations of Friedman, based on blood utilization figures for 300 hospitals.4

On the basis of this material, two lists were developed and combined. One list was the Recommended Surgical Blood Order Schedule (RSBOS). The term maximum was avoided. Our list was designed as a recommendation for the usual case, not the exceptional case, and the term recommended was used instead. The second list specified procedures for which it was felt Type and Screen (T&S) only was adequate. Since this was a new concept at our hospital, this group was listed separately.

At our hospital, Type and Screen means that the laboratory will establish the patient's blood type and will screen for unexpected antibodies that might result in a problem with crossmatching should blood be required. If no unexpected antibody is found, crossmatching is not done, but the laboratory guarantees the availability of appropriate blood that can be crossmatched on an emergency basis if bleeding occurs during surgery. If unexpected antibodies are detected, which is uncommon, crossmatching of an appropriate number of units is done before surgery. If the blood in inventory used to cover surgery is not crossmatched, there is maximum flexibility in the use of this blood and this is helpful in minimizing outdating.

In developing the Recommended Surgical Blood Order Schedule and Type and Screen program, we tried to assure the medical staff that these were recommendations, not rules. Physicians are free to override the recommendations if the clinical circumstances warrant. When the order for blood is discrepant from the recommendations, the physician is contacted by a pathologist.

At first, most discrepancies resulted from failure to consult the list and the physician was happy to adjust the order according to recommendations. With increased familiarity with the system, discrepancies usually have resulted from exceptional clinical circumstances in which more than the normal use of blood was anticipated. Since the program was started, no more than one or two calls per week have been necessary.

In addition to the policies established by the Transfusion Committee, changes were made in laboratory procedures. As a first step, the crossmatch release period was decreased to 24 hours.

The next step was to establish a target inventory. While the formula of Cohen and Pierskalla seemed more applicable to a larger transfusion service than to ours, it was decided to use it on an empiric basis, using demand figures for each blood type based on our own experience from the previous year. The ratio of outdating to cost of shortage is unrealistic in our institution because we do not pay for emergency transportation. This cost is borne by the Red Cross. Therefore, we used

he exponent values derived by Cohen and Pierskalla from heir Chicago data exactly as given. Fractions were rounded o the next larger figures. The inventory targets are shown in Table 1.

RESULTS

The results of the program may be considered in terms of outdating, transfusion/crossmatch ratio, inventory, and problems arising from the system.

Using January, 1980, to May, 1980, as the base period, the nean monthly outdate was 19.4 units or 14.7 percent of nventory; the mean inventory was 27.4 units, ranging as high as 42 units of blood on the shelf in the blood bank at one ime. The data are shown in Table 2. June, 1980, through August, 1980, was an interim period, as the program was being established, with intermediate results. The program essentially was in place by September, 1980, and the sixnonth period of September, 1980, to March, 1981, was used for purposes of comparison with the base period. The mean nonthly outdate for this period was 3.6 units, or 2.6 percent of the inventory; the mean inventory was 22.1 units, with a naximum (excluding the holiday period in December) of 33 units. These data are shown in Table 3.

The differences between the base period and the test period are appreciated more easily in Table 4 which summarizes data for two exactly comparable time spans, January, 1980, hrough March, 1980, versus January, 1981, through March, 1981. It may be seen that the number of crossmatches per

TABLE 1 Target Inventories Cal- Cal- culated Target culated Targe								
A-	1.6	2	В	0.4	1			
0+	5.8	6	AB+	0.6	1			
0-	1.2	2	AB-	0.2	1			
	Total =	20 units c	n hand a	at any time				

transfusion actually given decreased from 3.3 to 2.2, resulting in a saving of 381 crossmatches that were not required because of the program. The monthly mean number of units outdated during this period decreased from 21 to 2.7. Blood utilization was identical during these two periods.

As noted above, the formula of Cohen and Pierskalla predicted that changes in outdating would be very sensitive to relatively small changes in mean inventory. This proved to be the case, as shown in Table 5. A mean inventory decrease of 5 units resulted in the dramatic changes in outdating as described.

It is of interest to see how our inventory calculations compared with what we experienced during the test period from September, 1980, to March, 1981. In fact, we carried a slightly higher mean inventory than calculated, especially of the more commonly used groups, O and A positive, as shown in Table 6.

It is self-evident that the decreased number of crossmatches and outdates has resulted in a substantial financial saving for the hospital.

Few problems have arisen as a result of the Recommended Surgical Blood Order Schedule. No calls for emergency crossmatch were received during the test period referred to above. Subsequent calls have been occasioned by errors in ordering. In one instance, Type and Screen was ordered for a laminectomy, which is listed as a one-unit crossmatch recommendation. Blood was ordered from the operating room on an emergency basis, but was not required. A salpingectomy for ectopic pregnancy, a two-unit procedure, was scheduled as an exploratory laparotomy, a Type and Screen procedure, even though the diagnosis was known. Two units were ordered on an emergency basis and used in the operating room. In two more recent incidents, some difficulty was experienced in getting a fresh blood specimen for crossmatching to the laboratory at the time of request for emergency crossmatch because of distance between the operating room and the laboratory and because of unavailability of personnel to transport it. Use of a preadmission testing program results in the type and screening procedures being

		TABI	LE 2				
	Act	ivity and Inve	ntory Statisti	cs*			
Month	Jan.	Feb.	Mar.	April	May	Overall	Mean
1) Crossmatches (CM)	353	309	432	409	350	1853	
2) Transfusions (T)	120	95	113	126	68	522	
3) CM/T	2.9	3.3	3.8	3.2	5.1	3.5	_
4) Outdate (units)	21	14	28	16	18	97	19.4
5) Outdate (percent)	12.8	12.6	17.7	10.3	17.6	14.7	_
6) Mean inventory	_	_	29.4	27.0	25.9		27.4
7) Range of inventory	_		19-42	17-34	15-37	_	_
*From January, 1980, to May, 1980.							

TABLE 3 Activity and Inventory Statistics*									
Month	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Overall	Mean
1) Crossmatches	306	326	232	306	229	207	277	1883	
2) Transfusions	121	125	80	137	94	105	127	789	******
3) CM/T	2.5	2.6	2.9	2.2	2.4	1.9	2.2	2.4	_
4) Outdate (units)	4	4	2	7	2	2	4	25	3.6
5) Outdate (percent)	2.6	2.4	2.1	4.1	1.9	1.7	2.7	2.6	
6) Mean inventory	20.0	23.8	21.3	26.7	18.7	20.6	23.7	Name	22.1
7) Range of inventory	13-25	14-30	15-29	13-39	10-27	13-26	16-33		
*From September, 1980, to March,	1981.								

TABLE 4 Crossmatches, Transfusions, and Outdating* Diflan to lan to Mar. '80 Mar. '81 ference CM/T 2.2 1.1 Mean outdate (units) 21.0 2.7 -18.3Outdate (percent) 14.5 22 12.3 2 No. of transfusions 328 326 1094 713 -381No. of crossmatches *From January, 1980, to March, 1980, versus January 1981. to March, 1981.

		BLE 5 um Inventory Levels	
	Jan. to Mar 1980	Sept. 1980 to Mar. 1981	
Mean	27.4	22.1	
Maximum	42	33 (except holidays)	

performed on specimens that become more than 48 hours old at the time of surgery and therefore are unsuitable for crossmatching. We now obtain a fresh specimen on the day of surgery if a suitable specimen is not present in the laboratory.

DISCUSSION

The results of our Blood Bank Inventory Control program have demonstrated quantitatively the value of this type of program. It would appear that the most important result has been a decrease in the number of crossmatches per transfusion given (or increase of p in the formulation of Cohen and Pierskalla). This step has been achieved by establishing a Recommended Surgical Blood Order Schedule, of which a Type and Screen program is an element. The steps required to develop the RSBOS and T&S program have included working in cooperation with the medical staff committee to establish recommendations based on experience in our hospital and leaving room for physician judgment in providing for exceptions to the recommendations. This program would not be possible except that the central blood bank, New Jersey Blood Services, has been willing to guarantee sufficient blood units on hand to cover a Type and Screen request, even when we do not crossmatch.

A number of developments in the future may alter our inventory control practices further. For example, the advent of CPDA-1 anticoagulant for blood units, with increase of shelf life from 21 to 35 days, permits a larger inventory with less likelihood of outdate. (This conversion was beginning in our area at the close of the test period.) The concept of the full crossmatch itself is coming into question,⁵ and it is possible that crossmatching will be eliminated entirely, at least in emergency cases, on the grounds that screening for unexpected antibodies, in itself, is sufficient to prevent transfusion of incompatible blood. For the present time, however, an inventory control program of the type we have implemented, including recommendations for surgical blood ordering, can offer major benefits toward optimizing the use of available blood supplies and minimizing wastage.

SUMMARY

As the demand for blood transfusion increases, efficient utilization of donated blood becomes mandatory. Because of

TABLE 6					
Inventory Expected Versus Experienced by Type					
	Calculated	Target	Actual	Difference	
0+	5.8	6	7.8	+2.0	
0-	1.2	2	1.9	+0.7	
A+	4.4	5	6.0	+1.6	
A-	1.6	2	1.9	+0.3	
B+	2.0	2	2.5	+0.5	
B-	0.4	1	0.5	+0.1	
AB+	0.6	1	0.9	+0.3	

20

0.2

21.7

n

5.5

0.2

16.2

excessive outdating of blood, an inventory control program was developed at our institution. Reduction of the number o crossmatches was considered, on a theoretical basis, to be at essential element in inventory control. To reduce demand for crossmatching, a Type and Screen program and a Recommended Surgical Blood Order Schedule were estab lished.

The program resulted in a reduction of outdating from 14.5 to 2.2 percent of units received in comparable three month periods before and after institution of the program with reduction in the number of crossmatches performed by 381. These changes were achieved with relatively small changes in actual inventory.

This experience demonstrated the utility of a Type and Screen program in reducing wastage of donated blood.

Note added in proof:

AB-

Total

Since this communication was accepted for publication the first quarter of 1982 has passed. In 1982, the crossmatch/transfusion ratio has dropped to 1.8 (Table 4) The total number of crossmatches decreased a further 6.1 percent, despite a 14 percent increase in the number of units transfused. The mean monthly outdating rate has dropped to 0.7 units per month or 0.5 percent. These data indicate continued improvement in the application of the inventory control program, abetted by the conversion to CPDAanticoagulant, which gives the blood a longer shelf life. I appears that it should be possible today to eliminate totally outdating of blood. During the first quarter of 1982, requests for crossmatch were received from the operating room four times. Blood actually was used for only one patient. Antibodies requiring preoperative crossmatch were identified in three patients; one patient was transfused.

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SCRIPTION: Methyltestosterone is 17.6-Hydroxyvlethylandrost-4-en-3-one. ACTIONS: Methyltestorone is an oil soluble androgenic hormone. ICATIONS: In the male: 1. Eurucholdsm and schem. 2. Male organication in the male: 1. Eurucholdsm and schem. 2. Male organication in the male: 1. Eurucholdsm and schem. 2. Male organication in the male of the cogenic deficiency. 4. Post-puberal cryptochdism evidence of hypogonadism. Cholestatic hepatitis jaundice and altered liver function tests, such as eased BSP retention, and rises in SGOT levels, have reported after Methyltestosterone. These changes ear to be related to dosage of the drug. Therefore, in presence of any changes in liver function tests, drug uld be discontinued. PRECAUTIONS: Protonged age of androgen may result in sodium and fluid nition. This may present a problem, especially in ents with compromised cardiac reserve or renal iase. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. CONTRAINDICATIONS: Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast Contraindicated in the presence of severe liver damage WARNINGS: If praipsim or other signs of excessive sexual stimulation develop, discontinue therapy, in the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautously in young boys to avoid premature epiphyseal dosure or precorous sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens, Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. ADVERSE

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalemia particularly in patients with melastatic breast carcinoma. Programme of the patients of the melastatics of solid patients of the melastatics of solid patients. Osage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunuchism. 10 to 40 mg.; Male cimarcter symptoms and impotence due to androgen deficiency. 10 to 40 mg.; Postpuberal cryptorhesm. 30 mg. REFERENCE: R. B. Ostpuberal chromosome of the control of th







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New Jersey Physician Assistant Graduates Are Successful Practitioners

LAURA BROWN NELSON, Ed.D., Newark*

A majority of the graduates of the Physician Assistant Program of Rutgers University-University of Medicine and Dentistry of New Jersey work in primary care specialties in counties which contain nealth manpower shortage areas. The graduates perform a broad range of professional functions that involve a substantial amount of skill and responsibility.

ince the founding of the first physician assistant program in 1965, approximately 60 programs have been established across the country to provide medically trained practitioners to alleviate "... a shortage of physicians and/or a geographic maldistribution of physician services and ... an ineffective use of physicians in the areas of primary care."**

In 1971, the American Medical Association's Council on Medical Education established the "Essentials of an Approved Education Program for the Assistant to the Primary Care Physician." The goals and objectives of physician assistant programs are based primarily on these essentials which delineate general minimal standards in terms of program characteristics and clinical competencies that graduates should possess.

The Physician Assistant Program of Rutgers University-Livingston College and the University of Medicine and Dentistry of New Jersey-School of Allied Health Professions developed its program goals and objectives in accordance with these essentials and the compatible guidelines of its federal granting sources. Based on program objectives, graduates would be expected to: (1) work as physician assistants under the supervision of primary care physicians; (2) gain expanding roles in performing diverse diagnostic, therapeutic, patient management, and related functions; and (4)

continue their personal and professional development after

In order to determine the degree to which the RU-UMDNJ Physician Assistant Program has accomplished its objectives, student file data and responses to a mailed survey of graduates were analyzed.

METHOD

The file data used consisted of demographic data, admissions qualifications, and the students' academic performances (i.e. grade point averages) in program courses.

A questionnaire, that was designed to elicit information relative to program objectives, was mailed to the 51 graduates of the program in July, 1979.

As a result of the original and two followup mailings, 40 graduates responded. This represents a 78.4 percent response rate.

Questionnaire items were grouped into the following categories: employment data; professional functions; diagnostic functions; therapeutic functions; patient man-

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**Association of Physician Assistant Programs, National New Health Practitioner Program Profile 1977-1979, 3241 Jefferson Davis Highway, Arlington, VA 22202. agement functions; auxiliary clinical service functions; auxiliary administrative service functions; and professional development.

Employment data consisted of questions regarding the type, location, and specialty of practice; the salary earned; a rating scale of the supervising physician; and a discussion of job satisfaction.

The items that pertained to diagnostic, therapeutic, and patient management functions were ranked numerically by a team of physician assistants based on the relative amount of knowledge, skill, risk, and responsibility required to perform the function. Individual scores were calculated and medians, means, and quantile ranks were assigned.

Individual scores for auxiliary clinical and administrative services were derived by simply tabulating the total number of services performed. Medians and quantile ranks also were determined.

Questions relating to membership in professional organizations,²⁻⁴ continuing medical education (CME) credits,²⁻⁵ reading professional journals,²⁻³ and certification status were asked because they were thought to be related to professionalism.

Since each professional development variable requires different amounts of financial investment and intrinsic and extrinsic motivation on the part of the graduate, it would be desirable to assign relative weights to each variable; however, the difficulty of measuring and categorizing the types of motivation limits one to considering these variables as simple ratios. Each professional organization and journal listed was assigned a value of "1" and equivalency between the continuing medical education credits earned by members of sequential graduating classes was accomplished by dividing the individual's CME credits by the number of years that had elapsed since he/she graduated from the program. All of the respondents were certified, had applied to take the certifying examination, or were pursuing a different career; taking the certifying examination could not be used as a component of the professional development rating.

Frequency distribution and percentages were calculated for all questionnaire items except job satisfaction and program evaluation items that required essay responses. Cross tabulations and Chi Square analysis were performed between those questionnaire items and student characteristics that were thought to be related.

RESULTS

Admissions Data. The compilation of respondents' student file data revealed the following information.

Mean age at admission was 23.25 years.

Sixteen PAs (40 percent) were female and 24 PAs (60 percent) were male.

Thirty-two respondents (80 percent) were residents of New Jersey and 8 respondents (20 percent) were residents of other states.

Seventeen PAs (42.5 percent) were residents of New Jersey counties designated as medically underserved.

Twenty-two PAs (55 percent) had attended the cosponsoring university prior to enrolling in the program and 18 PAs (45 percent) had attended other colleges and universities.

Thirty-seven of the respondents (92.5 percent) had completed more than the one year of college required for admission to the program and 3 respondents (7.5 percent) had completed one year of college. The mean years of college at the time of admission to the program were 3.4, 3.0, and 2.8, respectively for the first, second, and third classes of

students surveyed.

Five of the respondents (13.5 percent) had grade point averages (GPAs) below the level recommended for admissions*; 4 respondents (10 percent) had the minimum recommended GPA (2.5, "A"-4.0); and 31 respondents (77.5 percent) had GPAs above the minimum level recommended for admissions.

Thirty-four respondents (85 percent) had health care experiences at the time of admissions and 6 (15 percent) did not.

Academic Performance. It is a policy of the RU-UMDNJ Physician Assistant Program that students must complete all program courses with a minimal grade of "C"; hence, all graduates would have a GPA of 2.0 or greater. The GPA for respondents, while enrolled in the program, ranged from 2.4 to 4.0 with 29 respondents (72.5 percent) earning a cumulative program GPA of 3.0 or greater. The mean didactic GPA was 3.18; the mean clinical GPA was 3.27.

Employment Data. The following data were reported by graduates who responded to the survey.

A majority of respondents live in the northeastern region of the United States. The geographic distribution is as follows: New Jersey, 4; New York, 14; Connecticut, 10; Massachusetts, 2; Pennsylvania, 4; Ohio, 1; New Hampshire, 1; Wisconsin, 1; Florida, 1; Louisiana, 1; and Maryland, 1.

Twenty-five respondents (65.8 percent) worked in urban areas, 10 respondents (26.3 percent) worked in suburban areas, 3 respondents (7.9 percent) worked in rural areas, and 2 respondents did not answer the question. Fifteen of the 40 graduates worked in cities with a population greater than 100.000.

Although it was not possible to determine if the respondents were working in health manpower shortage areas (HMSA) as designated in Section 332 of the Public Health Service Act7 (respondents failed to give the census tracts in which they practice), a majority (24) of the 36 respondents who practice as PAs practice in counties that contain HMSAs. Since a preponderance of respondents practice in institutions (hospitals, clinics, and long-term care facilities) that serve large geographic areas, it can be assumed that these respondents provide services for individuals from HMSAs of the counties within which the employing institution is located.

Thirty-one respondents (77.5 percent) first were employed as PAs within six months of graduating from the program, 5 respondents (12.5 percent) took longer than six months to find employment as PAs, and 4 respondents (10 percent) never had been employed as PAs at the time they responded to the survey.

At the time that the graduates responded to the survey, 34 graduates (85.0 percent) were employed as PAs and 6 graduates (15.0 percent) were researchers, educators, or full-time students.

Of the respondents who were practicing as PAs, 21 respondents (58.3 percent) were employed in hospital settings, 4 respondents (11.1 percent) were employed in clinics. 3 respondents (8.3 percent) were employed in solo practices, 3 respondents (8.3 percent) were employed in long-term care facilities, 3 respondents (8.3 percent) were employed in partnership or group practices, 1 respondent (2.7 percent) was employed in an industrial medical facility, and 1 respondent (2.7 percent) was employed in an industrial medical facility, and 1 respondent (2.7 percent) was employed in an industrial medical facility, and 1 respondent (2.7 percent) was employed in an industrial medical facility, and 1 respondent (2.7 percent) was employed in an industrial medical facility, and 1 respondents (2.7 percent) was employed in an industrial medical facility, and 1 respondents (2.7 percent) was employed in contract the contract of the

^{*}The admission policy states that "The enforcement of this criterior (2.5 overall grade point average) will be regarded as secondary ir cases where individuals show high potential by improved performance."

spondent (2.7 percent) did not indicate the site of employment.

The frequency distribution of medical specialties in which espondents practice are: 30.6 percent pediatrics, 25 percent urgery, 11.1 percent internal medicine, 11.1 percent general practice, 8.3 percent family medicine, and 13.9 percent other nedical specialties.

Nine respondents (25 percent) of the practicing PAs work 10 or fewer hours per week, 18 respondents (50 percent) work 11 to 60 hours per week, 7 respondents (19.4 percent) work of to 80 hours per week, 1 respondent (2.8 percent) works nore than 80 hours per week, and 1 respondent (2.8 percent) lid not list the hours worked per week.

Four (11.1 percent) of the practicing PAs earn \$14,000 or ess per year, 20 PAs (55.6 percent) earn between \$14,000 and \$18,000 per year, 9 PAs (25.0 percent) earn more than \$18,000 per year, and 3 PAs (8.3 percent) did not respond to he question. The mean salary for the 33 respondents was \$17,157.

Based on essay responses to the questionnaire item: "Disuss major job satisfaction/dissatisfaction," the following actors appeared to contribute substantially to job satisfacions:

- Acceptance of the physician assistant role by the supervising physician and professional staff.
- Perceiving a potential for growth through diverse clinical functions, research or teaching opportunities, or increasing level of responsibility.
- Good interpersonal relations with other health proessionals and with patients.

Respondents who expressed dissatisfaction with their job orimarily were concerned with the number of hours worked or practice restrictions as determined by state law or instituional policies.

In light of the fact that physician assistants function in a dependent role with their supervising physician, it would be reasonable to assume that certain aspects of job satisfaction would be related to how the PA perceives his or her supervisor. Inasmuch as most respondents indicated that hey generally were satisfied with their jobs, it is not surprising that a majority (50 percent or more) rated their supervising physician as being above average in each of the nine characteristics which related to professional proficiency and conscientiousness; practice management; and relationships with patients, PAs, and other health professionals.

TABLE 1
General Diagnostic Functions

Type of Function	Function Rank	Percent Performing Function (n-36)*
Detailed history	naiik 1	94.4
	'	
Problem-oriented history	2	91.7
Interpret history	3	91.7
Complete physical examination	1	100.0
Interpret physical examination	2	91.7
Record histories/physicals	1	100.0
Present findings to physician	2	97.2
Present findings to other		
health professionals	3	80.6
Admitting histories and		
physical examinations	1	94.4
*n includes only those graduates physician assistants	who have	practiced as

Professional Functions. A majority of respondents had some involvement in each of the categories of professional functions studied.

The category of diagnostic functions was subcategorized into general diagnostic functions (i.e. histories, physical examination, and recording and presenting data) and diagnostic studies functions (i.e. clinical laboratory tests).

The highest individual score that could be attained from the summation of all diagnostic function scores was 148. The quantile ranks were as follows: Q1=61.5; Median=95.0; Q3=111.0; and Maximum=139.0. The mean score for all responses was 83.5. It was determined from the frequency distributions that a majority of respondents (80.6 percent or greater for each function) performed each of the general diagnostic functions listed (Table 1).

Within the subcategory of diagnostic studies functions, interpreting diagnostic studies and requesting diagnostic studies were ranked highest and second highest, respectively, because they were thought to require more knowledge, skill, and risk than collecting specimens or actually performing laboratory tests. A majority of respondents (58.3 percent or greater for each function) requested and interpreted all diagnostic studies listed (Table 2).

The highest individual score which could be attained from the summation of all therapeutic functions was 34. The

			TABL					
			Diagnostic Stu	ales Function	on			
	Request		Collect		Perform		Interpret	
Type of Function	Function	% of	Function	% of	Function	% of	Function	% of
	Rank	Grad.	Rank	Grad.	Rank	Grad.	Rank	Grad.
Urine	3	91.7	1	16.7	2	16.7	4	89.0
Stool	3	80.6	1	14.0	2	14.0	4	75.0
Sputum	3	80.6	1	13.9	2	8.3	4	66.7
Throat	3	80.6	2	50.0	1	11.1	4	72.2
Wound exudate	3	80.6	2	52.8	1	13.9	4	58.3
Urethral exudate	3	72.2	2	27.8	1	11.1	4	61.2
Vaginal and cervical								
exudate	3	63.9	2	44.4	1	13.9	4	58.3
Gram stains	3	83.3	2	38.9	1	30.6	4	63.9
Electrocardiogram	3	83.3	2	19.4	1	41.7	4	69.4
X-ray studies	3	83.3	2	2.8	1	2.8	4	77.8
Blood counts	3	88.9	1	44.4	2	8.3	4	80.6
Blood chemistries	3	88.9	1	44.4	2	5.6	4	77.8

quantile ranks were as follows: Q1=11.0; Median=19.5; Q3 = 28.0; and Maximum=34.0. The mean score for all responses was 21.3. With the exception of applying splints and plaster casts, a majority of respondents (59.0 percent or greater for each function) were allowed to perform therapeutic functions with indirect supervision (Table 3).

Thirty-three was the highest possible score that could be achieved for patient management functions. The quantile ranks were as follows: Q1=21; Median=26.5; Q3=31; and Maximum=33. The mean score for all responses was 23.65. Twenty-one of the 36 graduates who have practiced as PAs contribute to patient management by counseling and educating patients in regard to physical and mental health, diet, disease, therapy, and normal growth and development; participating in patient rounds; maintaining patient progress notes; executing orders; and planning for diagnostic studies. With the exception of diet and mental health counseling, a majority of this group of graduates performed these functions frequently (Table 4).

The highest possible score that a respondent could receive under the category of auxiliary clinical service functions was 14. The quantile ranks were 4.5, 9.0, 11.0, and 14.0 for Q1, Median, Q3, and Maximum, respectively. The mean score for all responses was 7.8. There was great variability among the number of respondents who performed auxiliary clinical service functions. Of the 36 respondents who have practiced as PAs, 31 respondents (86.1 percent) perform emergency service functions, 28 respondents (77.8 percent) make patient referrals, 15 respondents (41.7 percent) provide voluntary clinical services to the community, and 8 (22.2 percent) provide services in extended care facilities.

The highest possible score that respondents could receive under the category of auxiliary administrative service functions was 7. The quantile ranks were 2.0, 4.5, 6.0, and 7.0 for Q1, Median, Q3, and Maximum, respectively. The mean score for all responses was 3.8. A more even distribution of responses was found relative to auxiliary administrative service functions. Thirty respondents (83.3 percent) transcribe standing orders, 27 respondents (75.0 percent) compile and record case summaries, and 15 respondents (41.6 percent) perform practice management functions.

Positive relationships were found to exist between student file data and professional functions. A larger percentage of male respondents scored above the median in the performance of therapeutic procedures, patient management ($X^2 = 9.032$ with Yates Correction for continuity; p = 0.0027), and auxiliary administrative service functions than did female respondents. A larger percentage of female respondents scored above the median in the performance of auxiliary clinical service functions than did male respondents. Equal percentages of male and female respondents scored above the median in the performance of diagnostic functions.

A larger percentage of respondents who were in the youngest age group (18 to 22 years when admitted to the program) scored above the mean in the performance of diagnostic functions, patient management functions, auxiliary clinical service functions, and auxiliary administrative service functions (X^2 =6.750 with Yates Correction for continuity; p=0.0094) than did older respondents. A larger percentage of respondents in the middle age group (23 to 27 years when admitted to the program) scored above the median in the performance of therapeutic procedures than did younger or older respondents.

TABLE 3
Therapeutic Functions

	Number of Graduates Who Perform	Percentage of Graduates Who Perform Procedure With Indirect
Procedure	Procedure	Supervision
Insert urethral catheter	27	100.0
Perform visual screening	20	95.0
Perform audiometry		
screening	14	92.8
Administer immunization		
orally or by injection	27	92.6
Administer medications		
by injection	31	87.1
Administer medications		
topically	29	86.2
Give intravenous		
fluids	28	85.7
Administer medications		
orally	26	84.6
Care for and suture		
wounds	30	83.3
Control external	0.4	77.4
hemorrhage Perform artificial	31	77.4
respiration ventilation	31	67.7
Remove splints and	31	67.7
plaster casts	15	66.7
Perform cardiopulmonary	10	00.7
resuscitation	33	60.6
Transfuse blood and		00.0
blood components	22	59.1
Apply splints and		
plaster casts	17	47.1

TABLE 4
Patient Management Function

	Frequency	of Perfo	rmance
Functions	Frequentiy	times/ Rarely	
Physical health, counseling and education	29	8	3
Mental health, counseling and education	15	19	6
Diet counseling and education	16	18	6
Disease counseling and education	32	3	5
Therapy counseling and education	31	7	2
Normal growth and development, counseling			
and education	17	17	6
Patient rounds	26	5	9
Patient progress notes	26	7	7
Execute standing orders Execute other specific	18	12	10
orders Plan for diagnostic	19	8	13
studies	24	12	4

A larger percentage of respondents who had one or fewer years of previous health care experience (acquired before enrolling in the program) scored above the median in the performance of therapeutic procedures, patient management, auxiliary clinical service, and auxiliary administrative service functions than did respondents who had more han one year of previous health care experience. A larger percentage of respondents who had more than one year of previous health care experience scored above the mean in the performance of diagnostic functions than did respondents who had one or fewer years of previous health care experience.

Professional Development. All respondents indicated that hey read at least one professional journal regularly and a najority (70.0 percent) indicated that they read three or more

"Thirty-eight of the 40 respondents (95 percent) are members of state or national physician assistant societies."

ournals. Thirty-eight of the 40 respondents (95.0 percent) are members of state or national physician assistant societies. The mean continuing medical education (CME) credits earned for the 40 respondents was 53.8. When the CME redits for each individual were adjusted to establish equivalency between sequential graduating classes, the adjusted CME credits mean was 25.4. One member of the first graduating class had earned 231 CME credits—the highest number earned by all respondents. Eleven respondents had not earned any CME credits. Four of these respondents had graduated 14 months before the survey was mailed and 7 had graduated two months before the survey was mailed.

SUMMARY

The goals of the RU-UMDNJ Physician Assistant Program are being realized to a great extent. Most of the respondents pursue careers as physician assistants, choose to work in primary care specialties, and are able to find

employment as physician assistants within a reasonable period of time. A majority of those who practice as PAs also are helping to relieve the maldistribution of the medical manpower by working in counties which contain health manpower shortage areas.

Despite the diversity of medical specialties and sites of practice, most respondents are allowed to perform a broad range of functions that involve a great deal of skill and judgment. Essentially, all of the respondents (91.7 percent or greater) performed all the general diagnostic functions listed; however, there were a small number of other professional functions that less than 50 percent of the respondents performed (apply and remove splints and plaster casts, perform audiometry screening, execute standing and other specific orders, provide services in extended care facilities, and perform practice management functions). The lower number of respondents performing these functions might be related to the fact that some of these functions are germane to specific specialties or types of practices that are not heavily represented by the respondents or the fact that certain functions (i.e. executing orders) might be restricted by state law or institutional policy.

It would appear that a majority of the respondents are continuing their professional development as indicated by the large percentage of them who frequently read professional journals, are members of state or national professional organizations, and by the number of CME credits they have earned since graduating from the program.

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Scrotal Emphysema

ROGER A. MOORE, M.D., KATHLEEN W. McNICHOLAS, M.D., FAUSTINO N. NIGUIDULA, M.D., DONALD L. CLARK, M.D., Browns Mills*

Scrotal emphysema is an unusual finding in a child following surgical procedure. This is a case report of a child who developed subcutaneous and scrotal emphysema after an epicardial pacemaker implantation.

ince the physician dealing with postoperative pediatric patients may be called upon to evaluate a amiliar with the clinical features that differentiate this entity rom other causes of scrotal distention.

CASE REPORT

A cyanotic, 10-month-old, 6.9 kg, 70 cm white male with ongenital 3° AV block was diagnosed at cardiac catheterizaion as having L transposition of the great vessels (physiologically corrected transposition of the great vessels) with a ingle ventricle and hypoplastic left A-V valve (anatomic ricuspid valve). Because of a history of four episodes of yncope felt to be related to severe ventricular bradycardia, n epicardial pacemaker was implanted into the patient. A acemaker lead was placed on the anatomical left (anterior) entricle through a left anterior thoracotomy. The wire was rought through a hole placed in the diaphragm and the pacemaker unit was positioned deep to the left rectus muscle n an extraperitoneal plane. Air was evacuated from the left pleural space prior to closure of the chest and no chest tube vas placed. The patient was extubated one hour following he procedure. An immediate postoperative x-ray revealed a mall left subpulmonic pneumothorax.

Eight hours following the operative procedure, the crotum was noted to be enlarged with the left side more prominent than the right side. Twenty-four hours post-

operatively, subcutaneous crepitus was noted over the entire chest and abdominal wall with greater involvement of the left than the right. The scrotal distention progressed as shown in Figure 1. The chest x-ray at that time (Figure 2) revealed extensive subcutaneous air over the abdominal and chest walls as well as the presence of a pneumomediastinum and persistence of a small left pneumothorax. Because of increasing scrotal distention, a chest tube was inserted on the left. Three days postoperatively, the chest tube was removed and there was slow resolution of the scrotal and subcutaneous emphysema. The remainder of the patient's hospital course was smooth.

DISCUSSION

Acute scrotal distention with air, while rare, has been reported following such diverse circumstances as spontaneous pneumomediastinum, direct scrotal injury, left thoracotomy, ruptured duodenal ulcer, retroperitoneal surgery, and cardiopulmonary resuscitation. Scrotal distention is produced in these processes by two primary mecha-

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Figure 1-Photograph showing distention of child's scrotum.



Figure 2—X-ray showing extensive subcutaneous emphysema over child's left thorax and chest.

nisms: leakage of intraperitoneal air into the scrotum causing a scrotal pneumatocele, and leakage of extraperitoneal air via subcutaneous tissue into the scrotal sac causing scrotal emphysema. The presence of a patent processus vaginalis allows for communication between the peritoneal and scrotal cavities with extension of intraperitoneal processes into the scrotum. When air is displaced from the peritoneal cavity into the scrotum, a scrotal pneumatocele is produced. This type of displacement might occur during cardiopulmonary resuscitation when interabdominal pressures mechanically are increased. In all cases of scrotal pneumatocele, a search for the source of the free intraperitoneal air must be made with consideration given to the possibility of a ruptured hollow viscus.

Scrotal emphysema develops when extraperitoneal air from some abnormal source such as pneumomediastinum tracks along tissue planes communicating with the scrotum. One route the air can take from a pneumomediastinum is across the diaphragmatic hiatus and directly into the pararenal space.7,8 The air then can travel down the retroperitoneal space along the spermatic cord fascia into the scrotum.2 The other route the air can take is dissection outside the parietal pleura into Camper's superficial fatty layer overlying the abdomen.8 The air then would produce a track of subcutaneous emphysema over the abdominal wall and finally down into the scrotum.3 The major clinical feature differentiating a scrotal pneumatocele from scrotal emphysema is that air in the pneumatocele can be displaced intraperitoneally with gentle pressure applied to the scrotum. Features that these two entities have in common include being painless, translucent, and unilateral or bilateral. In both cases if the course of air leakage is controlled or repaired, the distended scrotum should resolve without difficulty.

In our patient, the air leakage most likely was from unrecognized injury to the lung produced at the time of epicardial lead placement. Since no chest tube was placed, accumulated intrapleural air decompressed into the superficial abdominal fascia by way of the epicardial lead track. Further dissection led to the scrotal emphysema. By placing a left chest tube, further air leak was controlled and the remaining subcutaneous and scrotal air could be reabsorbed.

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CASE REPORTS

Squamous Cell Carcinoma of the Thyroid

DANIEL C. BUDD, M.D., DAVID L. FINK, M.D., MANOUCHEHR Y. RASHTI, M.D., T. HUNG WOO, M.D., Paterson*

Case reports of two patients with squamous cell carcinoma of the thyroid are presented. The clinicopathologic data and theories of derivation of primary thyroid malignancies are discussed. The tumor represents 1 percent of thyroid malignancies occurring in older individuals with long histories of goiter or thyroiditis and results from squamous metaplasia of the follicular epithelium. It is highly malignant, radioresistant, and poorly responsive to chemotherapy.

quamous cell carcinoma of the thyroid is an extremely rare primary neoplasm; it represents less than 1 percent of all primary thyroid cancers. Presently, there are about 50 cases in the world literature—some as isolated case reports but most from autopsy series.¹ It is difficult to distinguish primary from metastatic squamous cell carcinoma; therefore, a thorough search for an occult neoplasm is mandatory.

Two patients with squamous cell carcinoma of the thyroid are reported.

CASE REPORT 1

A 65-year-old woman was admitted to the hospital with progressive enlargement of a neck mass and complaints of slight cough and occasional hemoptysis (blood-tinged sputum). There was no hoarseness or dysphagia.

On physical examination, no lesions were seen in the nasal and oral cavities. The thyroid was firm and diffusely enlarged without prominent nodules. There was a single lymph node measuring 1.5 cm in the left posterior cervical area.

Laboratory data included a normal hemogram and SMA 12; T_3 resin 29% (normal 25 to 35%), T_4 12.7 mcg/dl (normal) 5 to 13 mcg/dl); FT_4 2.8 units (normal 0.8 to 2.3 units). Thyroid scan revealed 13% uptake in 4 hours and 30% in 24 hours; there was diffuse enlargement with patchy uptake. Chest x-ray showed tracheal deviation toward the right. Bone scan was normal.

Surgical exploration of the neck revealed a thyroid gland that was replaced almost completely by a grey-white hard tissue with adherence to the strap muscles (Figure 1). There was infiltration into the pretracheal fascia and cricopharyngeal muscle. Frozen section confirmed a malignancy and total thyroidectomy was carried out. Permanent pathological sections supported the diagnosis of poorly differentiated infiltrating squamous cell carcinoma (Figure 2) with frequent intravascular invasion and associated adenomatous goiter.

Two days following surgery the patient developed respiratory distress and laryngoscopy revealed edematous cords in an adducted position and no mucosal lesions. A tracheostomy was performed and the specimen of trachea showed infiltrating foci of squamous cancer in the submucosa without primary mucosal involvement.

The patient was treated with 4,000 rads of x-ray to the cervical region and began a chemotherapeutic protocol including cisplatin.

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Figure 1—The grey-white squamous cell carcinoma invading he thyroid gland with associated adenomatous goiter.

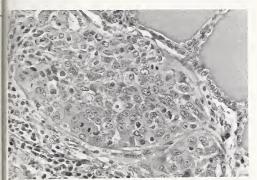


Figure 2—Micrograph from Case 1 showing focus of squamous cell cancer of the thyroid.

CASE REPORT 2

A 53-year-old man complained of cough and hoarseness, but denied any dyspnea, dysphagia, or hemoptysis. Past medical history included a hypertensive stroke with a right hemiplegia three years earlier.

On physical examination there was fullness of the thyroid isthmus; there were pulmonary ronchi and muscle wasting of the right arm and leg.

Initial laboratory studies revealed a hemoglobin of 16 gm/dl and hematocrit 49%; WBC 18,000, urine contained 20 to 30 WBC, and a urine culture grew *Klebsiella*. Chest x-ray was negative for infiltrate or malignant process.

Antibiotic therapy was instituted for his pneumonitis and urinary tract infection. After seven days of persistent pulmonary congestion, he developed acute respiratory distress, stridor, and hypoxemia requiring intubation initially followed by tracheostomy. At surgery, a firm, rounded thyroid mass was better appreciated and excised to provide access to the trachea. Pathological examination revealed squamous cell carcinoma of the thyroid (Figure 3).

A search for a primary malignancy was hindered by the onset three days later of a hypercalcemic crisis. Serum calciums ranged from 12.9 to 13.5 mg/dl (normal 8.5 to 10.5 mg/dl), phosphorus 1.8 to 2.2 mg/dl (normal 2.5 to 4.5 mg/dl), and 24 hour urine calcium 238 mg/24 hr (normal 50 to 300 mg/24 hr). Protein electrophoresis was normal. Intravenous pyelogram was negative but bone scan revealed



Figure 3—Well-differentiated squamous cell carcinoma of Case 2 invading thyroid parenchyma.

increased uptake in the right frontal region. Skull x-ray was normal.

A saline diuresis was begun but before any other investigations further to assess this malignancy could be completed, the patient expired from a cardiopulmonary arrest. The family refused an autopsy.

DISCUSSION

Primary squamous carcinoma of the thyroid is an extremely rare neoplasm seen mostly in older individuals, generally in their fifth or sixth decades with long histories of goiter and recent increase in size. In the majority of reported cases, the squamous cells appear to be superimposed on other chronic thyroid problems such as Riedel's struma, adenomatous goiter, or Hashimoto's thyroiditis.

The histogenesis of primary squamous cell carcinoma of the thyroid has been debated in most reports of this disease. Some authors believe the tumor arises from a thyroglossal duct remnant;² others implicate the ultimobranchial body.³ Another theory is metaplastic transformation of the follicular epithelium.

As the thyroid migrates downward during the fourth week of embryonic life from its origin at the base of the tongue to a site inferior to the hyoid bone, it leaves behind a duct which is lined with squamous, columnar, or cuboidal epithelium. If this duct fails to obliterate, the result is the formation of a thyroglossal duct cyst near the anterior midline between the foramen cecum and the suprasternal notch. The lowest part of the thyroglossal duct becomes thyroid tissue and is represented as the pyramidal lobe in the fully developed thyroid gland. If the squamous cells that become malignant are from this source, one would expect squamous cancer to occur more frequently in the central portion of the gland. However, most instances are found in the lateral lobes raising doubt that the thyroglossal duct remnant is the source of squamous cell cancer in the thyroid.

The ultimobranchial body arises from the fifth branchial pouch in fetal life and rarely persists after the 35 mm stage. Embryonic studies have documented its incorporation into the thyroids of sheep and pigs. Squamous-lined cysts have been found in rats at the exact area normally occupied by the ultimobranchial body. Whether this body contributes to squamous cells that give rise to cancer in humans is unknown.

The most widely accepted etiologic theory for squamous cell cancer is metaplasia of follicular epithelium. Squamous

cells may be encountered in the following conditions: adenomatous goiter, thyroiditis, primary and secondary myxedema, and cancer of various types including pure squamous. Forty percent of papillary and mixed papillary-follicular cancers may contain squamous areas. This incidence suggests that squamous cells are derived in fact from follicular epithelium that had undergone neoplasia.

The thyroid gland is infrequently the site of a primary cancer. Clinically apparent thyroid cancer accounts for about 1 percent of all cancers. In the United States in 1980, there were 9,900 new cases (2,800 males and 7,100 females) and 1,050 related deaths. The simplest pathological classification is that first advocated by Woolner et al. and subsequently adopted by the American Thyroid Association. It divides thyroid cancer into four main types according to morphologic and biologic behavior: papillary 60 percent, follicular 20 percent, medullary 5 to 10 percent, and anaplastic 10 to 15 percent.

The thyroid gland even less frequently is the site of metastatic cancer. In a series of 1,000 unselected autopsies at the Mayo Clinic, 7 3.9 percent of all patients with malignant neoplasms had metastases to the thyroid. In no patient was the thyroid the only organ involved with the metastatic process; it usually was part of a generalized carcinomatosis. Elliott and Frantz, reviewing the surgical experience at Columbia-Presbyterian Hospital, New York City, found 14 metastatic tumors of the thyroid masquerading as primary disease.8 These originated in the kidney, colon, lung, breast, and skin.

Often, the identity of a primary carcinoma is obvious from the cell type of the metastasis. Without a history of previously identified carcinoma, a poorly differentiated tumor may be difficult to distinguish from the primary. Because primary squamous cell cancer is rare, recognition of such a pathological entity should initiate an immediate investigation to determine its source.

In the cases presented by the authors, the only clinically apparent masses were in the thyroid. The first case revealed incidental invasion of the trachea on microscopic examination, although the tumor cells extended to the submucosa and did not arise from the surface mucosa as its primary focus. The concluding evidence in the second case rests only in that the most common other primary sites were excluded,

though a more complete investigation could not be done due to the patient's deteriorating condition. Among the primary sites that can metastasize to the thyroid are the lung, larynx esophagus, trachea, and regional lymph nodes.

Most combined or pure squamous cell tumors of the thyroid have a dismal prognosis. They grow rapidly, reach large proportions, and often cause tracheal or esophagea compression. Regardless of the differentiation of the tumor the prognosis remains uniformly poor with survival meas ured in months. These neoplasms often invade vital structures, are unresectable, and show radioresistance. Chemo therapeutic effects cannot be evaluated yet due to the smal experiences with squamous cancer of the thyroid.

SUMMARY

Two patients with squamous cell carcinoma are described Squamous metaplasia is the most likely etiology, but ar occasional carcinoma may be derived from embryonic rem nants. Metastases and direct extension of squamous cel carcinoma in the thyroid are much more frequent thar primary involvement. A primary lesion always must be sought. Radical surgical resection offers the best opportunity for cure since these lesions usually are radioresistant and chemotherapy inconclusive.

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Adrenocortical Carcinoma

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The authors report a patient with a virilizing adrenocortical carcinoma—a rare entity with only scattered references in the literature. The perioperative management of this problem is discussed to assist others who might be confronted with a similar problem.

artholomew first described the adrenal glands in 1563; his study generated little interest until 1936 when Kendall first isolated cortisone. Wu found only 82 cases of adrenocortical carcinoma mentioned in the literature until 1940. This tumor is very rare and, to date, most of the literature on the subject consists of isolated case reports. 2-4

This case report concerns a patient with this disease who was followed over seven years after removal of the tumor.

CASE REPORT

A 17-year-old female patient was hospitalized in February, 1973, with the complaint of amenorrhea of one-year duration. Menarche occurred at the age of 12, followed by normal menstrual periods for the next four years. The medical history was negative for serious illness; systemic review did not uncover any unusual symptomatology. As an outpatient, she responded to progesterone administration and withdrawal by vaginal bleeding in January. The following month, she had a spontaneous period.

Preadmission studies are given in Table 1.

In view of the findings of hirsutism, change in voice, and slightly elevated serum testosterone, the patient was hospitalized for further evaluation.

The patient was found to be a very high-strung individual, with acne, excessive hair growth on her chin and over her upper lip, a somewhat rounded facies, a deep timbre to her voice, striae of the skin of the abdominal wall, and a male-

type pubic hair escutcheon. Pelvic examination showed a slightly enlarged clitoris, a normal sized uterus, nulliparous cervix, and no adnexal masses. A Papanicolaou smear showed a fair estrogen effect.

Endocrine studies in the hospital are shown in Table 2.

An intravenous pyelogram showed flattening of the upper pole with downward displacement of the right kidney (Figure 1). Abdominal flush aortogram revealed a mass that measured 13 cm in diameter located near the right adrenal (Figure 2). Selective angiography showed that the mass mainly was supplied by the right superior adrenal artery, inferior phrenic artery, right middle adrenal artery, and capsular branches of the right renal artery. There was no evidence of any abnormality of the left adrenal on the aortogram. An inferior venogram disclosed a right upper quadrant mass encroaching on, but not infiltrating, the right border of the inferior vena cava. Liver scan showed extrinsic pressure on the portal hepatic region, but no evidence of intrinsic metastases. Lung scan showed normal perfusion.

The patient was operated on within ten days of admission. Immediately prior to the start of the surgical procedure, an intravenous infusion containing 200 mg of hydrocortisone was started. Through an intrathoracic transdiaphragmatic approach, the tumor was mobilized easily and removed after the vessels in the vicinity (including the adrenal vein) were

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TABLE 1 Preadmission Tests*

Plasma Testosterone—182 micrograms/dl (normal 30 to 150) 17 Hydroxycorticosteroids—10.5 mg/24 hr urine (normal 3 to 8)

17 Ketosteroids—11.6 mg/24 hr urine (normal 6 to 18) Pregnanetriol—3.7 mg/24 hr urine (normal 0.04 to 1.8) Follicle stimulating hormone—7 International Units/24 hr urine (normal 0 to 70)

*Two different laboratories are involved in the data reported in this paper and normal values vary.

TABLE 2

Endocrine Studies

ACTH radioimmunoassay—0.7 micrograms/dl (normal 2 to 10)

T₄ uptake—6 micrograms/dl (normal 4.5 to 12)

			*First	*Second
	Normal	Control	Day	Day
17 keto-	8-15 mg/	11.6	63.6	95.4
steroids	24 hr			
17 hydroxy-	3-8 mg/	10.5	21.7	
corticosteroids	24 hr			

Urinary estrogens—60 micrograms/24 hr (normal 5 to 100)
Urinary testosterone—82 micrograms/24 hr (normal 0 to 15)
Plasma testosterone—150 micrograms/dl (normal 30 to 95)
Urinary pregnanetriol—1.05 micrograms/24 hr (normal less than 0.4)

Plasma cortisol—0600 hours 20 micrograms/dl (normal 5 to

—1800 hours 8 micrograms/dl

Electrolytes: Sodium 140 (133 to 145 meq/1); Potassium 4.0 (3 to 5 meq/1); Chloride 102 (90 to 110 meq/1); CO_2 24 (23 to 31 meg/1)

Dexamethasone suppression test was not done. *40 units of ACTH intravenously each of the two days

ligated suitably. No lymph node or vessel involvement was detected. The adjacent viscera appeared normal. Because of this surgical approach, the contralateral adrenal could not be visualized. The patient tolerated the procedure very well; postoperatively, she was given 200 mg of hydrocortisone intravenously every 6 hours for 24 hours.

The pathology specimen consisted of a large ovoid-encapsulated tumor measuring 12 x 11 x 6 cm and weighing 583 gm (Figure 3). An attenuated adrenal gland measuring 7 x 3 cm was attached to the capsule. On microscopic examination, the tumor consisted of irregular, poorly differentiated groupings and anastamosing cords of long, round, and sometimes polygonal cells with irregular hyperchromatic nuclei. Numerous mitoses were seen. Several veins showed groups of malignant cells in the lumen which were adherent to the endothelial cells (Figure 4).

The patient had an uneventful recovery and was discharged on the tenth day after surgery. Cortisone, 25 mg three times a day, was prescribed and she gradually was weaned off this medication over a six-month period.

The patient has been followed for five years and has been completely asymptomatic. Chest x-rays have been made at approximately six-month intervals and have been reported within normal limits. An intravenous pyelogram has been obtained at yearly intervals; the last study in December,



Figure 1—An intravenous pyelogram showing downward displacement of right kidney.

1977, was reported as showing no abnormalities. The lates cortisol and 17 hydroxycorticosteroid levels are, respectively 17 microgram/dl (normal 8 to 20) and 2.5 mg/hr urin (normal 3 to 8 mg/24 hr urine). The plasma testosterone leve was 32 mg/dl (normal 20 to 80 mg/dl). All evidence o virilization has disappeared completely and her menstrua cycle returned to normal the following month.

DISCUSSION

While not all adrenal carcinomas show clinical features o hormonal dysfunction, those that do represent a diagnostic challenge. The differential diagnosis of the clinical syndrome includes ovarian tumors, adrenal hyperplasia, pituitary tumors, and ectopic tumors secreting adrenocorticotropic hormone (notably oat cell carcinoma of the lung) in additior to tumors of the adrenal cortex. Such patients may have the clinical appearance of Cushing's syndrome or a virilizing process.

The clinician must establish the location of the tumor and evaluate the possibility of malignancy. A careful pelvic examination is essential to rule out ovarian tumors Masculinizing ovarian tumors also will be associated with an elevation of the testosterone levels in most instances but will not show diurnal variation in the serum cortisol levels. In this case, the plasma testosterone was elevated and there was no loss of diurnal variation in plasma cortisol. However, the pelvic examination did not reveal any unusual findings. The urinary 17 hydroxycorticosteroid level was elevated, indicating a possible increased secretory activity by the adrenal cortex. The follicle stimulating hormone level was within normal range suggesting normal ovarian function. The pre-



igure 2—Aortogram revealing a mass that measures 13 cm in liameter.



Figure 3—The gross specimen, a large, ovoid-encapsulated tumor.



Figure 4—Microphotograph of specimen; several veins showed groups of malignant cells in the lumen.

sumption, in this case, is reinforced by the pregnanetriol level which only is elevated slightly. If a true metabolic block existed to the formation of fully hydroxylated steroids, the value obtained should have been much higher (up to about 20 mg/24 hr urine).

Without localizing information, it is important to differentiate between the triple possibilities that exist in this type of patient:

- An ACTH secreting tumor in the pituitary or an ectopic tumor arising from the lung, thyroid, or elsewhere.
 - 2) A true adrenal tumor.
 - 3) An adrenal hyperplasia.

In this case, the adrenocorticotropic hormone level is below the normal range indicating suppression of pituitary function, which mitigates against the first possibility. Obviously, if ACTH is not elevated, there is additional reinforcement to the localization of the tumor in the adrenal gland.

The most useful initial screening tests in these problems are: the determination of the plasma cortisol levels and the presence or absence of a diurnal variation, and 24-hour urinary 17 ketosteroid, and 17 hydroxycorticosteroid levels. If these values are normal, the patient does not have an adrenal or pituitary problem.

Where aberration exists, as in this case, the next most valuable laboratory tool is the dexamethasone suppression test. This test, carried out over two successive two-day periods, is of material assistance in distinguishing between these entities. Failure of suppression of urinary 17 hydroxy-corticosteroid levels indicates a tumor either in the adrenal or an extraadrenal tumor secreting adrenocorticotropic

hormone. If the plasma ACTH level is normal, the tumor has to be in the adrenal gland as mentioned previously.

In this case, a dexamethasone test had not been successfully carried out and is not reported. Since the plasma ACTH level was low and a frank tumor of considerable size had been localized on the right side, the additional effort to secure this data, after the first unsuccessful attempt, was not deemed worth the delay necessary for completion.

In many instances, the tests used in this case also serve to differentiate between a functioning adenoma and a carcinoma. Carcinomatous tumors usually are associated with a high baseline level of 17 ketosteroid in the urine and this shows very little change in response to ACTH stimulation. In our patient, there was only a mildly elevated 17 hydroxycorticosteroid level on baseline study and a definite rise in both the ketosteroid and hydroxycorticosteroid levels following ACTH stimulation. There was no loss in diurnal variation in plasma cortisol.

From a preoperative and clinical viewpoint, such findings are suggestive of a benign rather than a malignant tumor. The pathological report unequivocally showed multiple areas of blood vessel invasion indicating an invasive tumor, not a benign one. It is possible that this tumor is one of the exceptions (approximately 10 percent do behave in such a fashion) to the usual behavior of this type of tumor. Possibly, the other adrenal which did not appear atrophied as judged by the angiographic study continued to function in normal fashion and responded to stimulation.

"The aim of treatment in all cases of adrenal carcinoma should be surgical extirpation."

The aim of treatment in all cases of adrenal carcinoma should be surgical extirpation. The surgical approach to this tumor was a transthoracic, transdiaphragmatic one. This gave an excellent exposure of this large tumor and provided easy access to the right adrenal vein. Its only drawback was the inability to inspect the opposite adrenal gland. The cancer essentially is radioresistant, as pointed out by Lipsett.⁷ The drug, 1, 1-dicholor-2 (O-cholorophenyl) -2(pcholophenyl) ethane, has been found to be of some value in those cases that are inoperable. It has a destructive effect on adrenal tissue, which reduces cortisol production. Hutter reported a measurable steroid response rate of 34 percent utilizing this modality.8 Lipsett recommended monthly 17 ketosteroid and 17 hydroxycorticosteroid levels in patients treated with the drug.7

The pathological diagnosis frequently is difficult since the lesion can resemble a benign tumor. The existence of blood vessel invasion, as in this case, assures the diagnosis of malignancy.

Metastases have been found in kidneys, retroperitoneal space, and regional lymph nodes. Deposits in pleura, mediastinum, skin, subcutaneous tissue, spinal space, myocardia, thoracic duct, spleen, ovaries, opposite adrenal, and thyroid glands have been reported. MacFarlane has reported six cases of bone metastases.1 Brain metastases, while rare, have been reported.

Survival rates have been very discouraging in the experience of most authors. Females show a better prospect for recovery. Five-year survival rates have been reported as 32.3 percent,1 52 percent,6 and 71 percent.9 Nineteen percent of the survivors in the Rapaport study developed recurrences.9 No mention of the time interval of recurrences has been made.

SUMMARY

Adrenocortical carcinoma is a rare malignant tumor with a poor prognosis. It usually presents with hormonal disturbance, as in this patient, or as an abdominal mass.

This case presentation depicts the clinical course of such a tumor. In addition to the clinical findings, the endocrine study is presented. On this basis, a benign rather than a malignant tumor would be suspected. It is postulated that the contralateral adrenal may have been functioning normally and served to alter the expected results, since the pathological results unequivocally indicate a malignancy.

These tumors always should be extirpated where possible. Since the cure remission rate is low, followup with determination of hormonal levels is advised so that local recurrence and metastases can be recognized early and treated

The case presented represents a seven-year survival without recurrence.

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YOUR CONGRESSMAN SPEAKS

Medicare and Medicaid

THE HONORABLE HAROLD C. HOLLENBECK, Washington, DC*

t is a pleasure to write for *The Journal* from my vantage in the Congress. The support I have received from MSNJ and, especially, from my many friends within the medical community of Bergen County greatly is appreciated. You can be sure that I will continue my efforts to foster our close communication on the issues at hand.

As I begin this discussion, the House has passed its version of a budget resolution setting overall spending targets for the next fiscal year; so has the Senate. And the conferees are meeting to resolve differences.

The funding levels finally agreed upon will determine what action is taken on the full range of pending authorization and appropriation bills for all federal departments and agencies. And the signal sent to the private sector on the size of the deficit also could determine, to a large degree, whether or not interest rates remain at sky-high levels and when economic recovery will take a strong hold.

Though we are well past midsession, there is a long way to go from here. If I were able to make an overall assessment on the work of this Congress by picking and choosing among positive provisions to initiate tax reform, increases in the military budget, and major reductions in spending levels for many domestic programs, my report to you would be a glowing one. Unfortunately, however, the frightening and totally unacceptable federal budget deficits do not allow Congress and the Administration the luxury of patting ourselves on the back. Difficult choices are necessary for the immediate and longer future to refine budgeting for domestic programs, achieve cost savings for the Department of Defense, and obtain additional tax revenues.

The federal deficit must be reduced. The question we are answering now is whether the sacrifices will come on the backs of taxpayers, business, the poor, the defense establishment, or in a fair balance among all sectors of the economy. My votes will continue to be cast using fairness as the criterion, and I will continue to seek the broad input from New Jersey residents essential in reaching my decisions.

The changes being suggested for the major federal health programs remain just suggestions. They require legislative

action beyond general cost-saving ideas posed in the budget guidelines. Your thoughts at this stage, based on personal and professional experience, would be most helpful.

Allow me to look briefly at the recommendations for Medicare and Medicaid.

MEDICARE

This health insurance program is for 26 million elderly and 3 million disabled Americans; Medicare spending now accounts for 26 percent of all national expenditures for hospital care and 17 percent for physician services. In the absence of new legislation or other changes, Medicare spending will increase in fiscal year 1983 by about 16 percent to \$57.8 billion. The House-passed budget resolution would reduce spending by about \$3.2 billion, the Senate by \$4.1 billion, and the Administration by \$2.8 billion. Emphasis seems to be on fostering new competitiveness in the health care market-place rather than on stricter regulatory control.

Of most direct impact for members of the medical community are the suggestions:

- 1. To postpone the July 1, 1982, update on reasonable charges allowed under Part B until September 30 and establish all future updates on October 1. Estimates are that the proposal would reduce outlays for fiscal 1982 by \$45 million and outlays in fiscal 1983 by \$210 million.
- 2. To impose a one-time limit on the rate of increase in the economic index used to determine increases in physician fees to 5 percent instead of an anticipated 8 percent. The estimate is that this action would reduce outlays by \$10 million in fiscal 1982 and \$25 million in fiscal 1983.

There are more than 20 other proposals for cost savings within Medicare. The major ones include:

• Phasing out Professional Standards Review Organizations (PSROs) by July 1, also eliminating the requirement for utilization review.

^{*}Congressman Hollenbeck is from the 9th District. He is a member of the Committee on Science and Technology, the Select Committee on Aging, and the Committee on Public Works on Transportation. Correspondence may be addressed to Congressman Hollenbeck, 1526 Longworth House Office Building, Washington, DC 20515.

- Deferring eligibility for Medicare to the first day of the month following an individual's 65th birthday.
- Requiring employers to offer Medicare-covered employees the same health benefit plan they offer younger workers, making Medicare the secondary payer to these plans.
- Requiring federal workers to pay the hospital insurance portion of the Social Security payroll tax, thus also becoming eligible for Part A protection upon retirement.
- Reducing Medicare hospital reimbursement on an interim basis by an amount equal to 2 percent of the costs otherwise allowed by the program until legislation to improve the competitiveness of the health care sector fully is effective.

Hearings were held last session, and it is likely that we will be considering legislation designed to offer multiple health insurance plans to employees and to limit the amount of employer-paid health insurance premiums that can be deducted as business expenses.

MEDICAID

I have realized in my conversations with area physicians that problems and frustrations over the administration of Medicaid exist in far more than isolated instances. I try to remain in close touch with the State Division of Medical Assistance to monitor both your concerns and the availability of quality care for our Medicaid patients. I share misgivings about the potential adverse consequences of a reduction of a proposed \$2.1 billion or more in federal outlays. We cannot boast of budget cutting at the federal level when we merely are transferring necessary responsibilities to the state and localities. We must avoid threatening the fiscal solvency of states like New Jersey that exercise compassion in the administration of programs meeting the needs of our citizens.

As New Jersey physicians have received only one Medicaid fee increase of 5 percent since 1970, I am aware that in many instances doctors treating Medicaid patients are receiving only about 40 percent of their usual and customary charges.

It was extremely heartening to learn that the state administrators are holding discussions with representatives of the Medical Society of New Jersey, the New Jersey Hospital Association, and other interested parties in an effort to bring Medicaid fees better in line with other reimbursement schedules. The goal is to discourage Medicaid patients from seeking treatment for routine illness and injury at hospitals, achieving major program savings that will allow for an adjustment of fees. Premiums have been suggested as an

incentive for physicians who treat Medicaid patients during office hours on weekends and in the evenings.

I also am pleased to hear reports from physicians and administrators that the computer tie-in to the offices of doctors processing large numbers of Medicaid claims has sped reimbursement and reduced processing time. The procedures under examination to simplify Medicaid claims processing become ever more crucial with the severely constrained spending levels.

HEALTH POLICY QUESTIONS FOR THE LONGER TERM

It is an unfortunate observation that the nature of the budget process tends to produce short-term and piecemeal cost cutting. For example, proponents of the House-passed budget claim that the large Medicare savings will come from reform of the reimbursement systems for physicians and hospitals. Certainly, MSNJ and I agree that several of the proposals for reform are positive, necessary adjustments. But in the absence of comprehensive, across-the-board reforms, these broad cuts could reduce access to the high-quality medical care now available to Medicare beneficiaries and pose problems for the medical community.

I commend the American Medical Association for the ambitious, long-range study of federal health programs it recently has embarked upon, addressing medical policy questions such as:

- 1. Are the benefits structured properly in Medicare, Medicaid, and private health insurance programs? Are we insuring too much, and thereby destroying incentives for taking individual responsibility for personal health? Are we insuring too little, leaving serious gaps in health care delivery?
- 2. What should be the priorities by which we allocate funds among basic research, applied research, and the undergraduate education of physicians?
- 3. What is the most beneficial mix of specialists and primary care physicians?

These concerns are critical to the development of a national health policy and in determining the roles of both the government and private sectors in providing and paying for health care. The reality of long-range needs is evident in the fact that over the next 50 years, our over-65 age population, who depend most heavily on the health-care system, will increase more than two and a half times over.

The task before us is a difficult one. It demands continued close cooperation between your membership and those of us in government policymaking positions.

NUTRITION UPDATE

Magnesium Requirements in Human Nutrition*

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t is assumed that most American diets are adequate in magnesium (Mg). However, metabolic balance studies indicate that certain nutrients and stress conditions ncrease the need for Mg.¹ Furthermore, dietary surveys show that self-selected diets often contain 200 to 250 mg of Mg/day, which is below the recommended dietary allowance (RDA) of 300 to 400 mg per day for adults.²⁴ Since Mg is an activator of numerous enzyme systems which control zarbohydrate, fat and electrolyte metabolism, nucleic acid and protein synthesis, and membrane transport and integrity,⁵⁵6 this level of intake may have serious risks.

A Mg deficiency that is severe enough to result in low plasma levels is marked by well-known symptoms, such as convulsions and cardiac arrhythmia. Marginal deficiencies are associated with a variety of other acute and chronic disorders.⁵⁻⁹

IS THE RDA FOR MAGNESIUM OPTIMAL?

The RDAs for Mg are 300 mg for young women and 350 mg for young men (4.5-5 mg/kg/day).4 The RDAs for 15- to 18-year-old boys and pregnant and lactating women are estimated at 400 and 450 mg, respectively. The recommendation for older children is that sufficient Mg be consumed to provide for needs during growth. Balance studies, however, indicate that adolescent girls require 6 to 10 mg/kg/day, while adolescent boys seem to need even more.2,10 The RDAs for infants (50 to 70 mg or 4 to 10 mg/kg/day) are based on the amounts in human milk and infant formulas and are presumed to provide an infant's entire need. But, infants may need as much as 1.5 to 20 mg/kg/day, depending on their rates of growth and composition of their diets.2 While it is assumed that infant formulas provide enough Mg to meet an infant's need, it is significant that the formula-fed infants studied were barely in Mg equilibrium rather than in positive balance necessary for growth.2,4 It is noteworthy that although infant formulas contain higher levels of Mg than mother's milk, plasma Mg levels of bottle-fed infants were lower than breast-fed.2,7,11

The RDAs for Mg may not be optimal for most people. Attempts to redefine Mg requirements should take into account factors known to increase the need for Mg, such as excesses of some nutrients and of stress. Thus, studies conducted in metabolic units may yield misleading results because subjects are protected from uncontrolled dietary and stress factors.

CALCIUM (Ca), PHOSPHATE (PO4), AND VITAMIN D

Mg intakes have not decreased significantly during this century, but the intake of major nutrients that increase the requirement for Mg has risen substantially. 1,2,7 Animal experiments show that high dietary ratios of Ca/Mg and of PO₄/Mg, and Vitamin D excess, either alone or in combination, cause Mg loss.2.7,12 Human metabolic balance studies have examined the effects of increasing the ratios of Ca/Mg and PO₄/Mg within the limits of normal dietary intakes. When the dietary intake of Mg was maintained at 350 mg/day, and Ca was increased from low (200 mg/day) to high (1400 mg/day), negative Mg balance was observed.13 However, when Mg intake was increased to 500 mg/day, Mg balance was restored. Similarly, a negative Mg balance was produced when PO4 was increased from the near RDA level of 975 mg/day to 1500 mg/day. Even greater dietary PO₄ intakes are common in the United States diet.7 The most dramatic human example of Mg deficiency precipitated by PO₄ is a report of convulsive hypomagnesemia in formulafed young infants. This form of induced hypomagnesemia also can cause hypocalcemia in humans, a condition often treated with Ca and calcemic agents, but with less effectiveness than when treated with Mg. Finally, during three consecutive 20-day balance periods, 15 young women were fed diets with Mg controlled at the RDA level and normal intakes of Ca and PO4. Results showed all women were in strongly negative Mg balance. This study suggests that at these levels of intake, the dietary ratios of Ca/Mg and PO₄/Mg are high and supports earlier work indicating that Mg intake for adults should not be less than 6 mg/kg/day.

A provocative finding in diets containing high Ca/Mg and PO₄/Mg ratios was a gradual rise in serum cholesterol

^{*}Reprinted with permission of Contemporary Nutrition 7:1, 1982, a newsletter from the Nutrition Department of General Mills, Inc., Minneapolis, MN. Dr. Seelig is affiliated with the Department of Medicine, Goldwater Memorial Hospital, University Medical Center, New York, NY 10044.

despite low fat in the diet.¹⁴ Moreover, the calcemic agent Vitamin D, in addition to decreasing Mg retention when given in excess, also causes hypercholesterolemia.⁷⁻¹⁵

DIETARY FAT

High levels of fat in the intestinal lumen derived from fatty food ingestion or intestinal dysfunction, such as steatorrhea or short bowel, interfere with Mg absorption because soaps that are formed from fat and divalent cations like Mg are not absorbed.²

PROTEIN, SUGAR, AND ALCOHOL

Adequate protein intake is necessary for optimal Mg retention. When protein intake was increased from low to normal levels in young and adolescent boys and in girls and women on diets marginal in Mg, improved Mg retention was observed.^{2,10} Diets containing sufficient Mg for growth and development (10 to 16 mg/kg/day) resulted in positive balances regardless of the protein intake.¹⁰ High Mg intakes also improve nitrogen (N) balance in persons consuming a high-protein diet.

Protein loading (e.g. large gelatin doses added to a normal diet) causes urinary Mg loss. ¹² In this respect, hypomagnesemia was detected in a patient who experienced fatal cardiac arrhythmia during refeeding, subsequent to consuming a liquid protein diet for weight reduction. ¹⁸ This recalls the Mg-responsive cardiac arrhythmias observed in infants suffering from protein-calorie malnutrition during refeeding with diets low in Mg and high in protein, Ca, and PO₄. ¹⁹ Thus, with protein intakes common to liquid protein-reducing diets, Mg depletion is a risk. The results of these studies indicate that a low Mg/protein ratio can jeopardize Mg balance and that increasing the Mg/protein ratio improves N balance. Therefore, Mg intake should be high enough to permit optimal Mg and N retention. ¹⁰

High intakes of sugar also appear to increase the need for Mg.^{2,20} The urinary excretion of Mg more than doubled in young men after ingesting 100 g of glucose.¹²

Alcohol consumed with or without food increases Mg requirements. Even moderate alcohol consumption increases the urinary excretion of Mg.¹² Poor diet and urinary loss during alcoholism contribute to severe Mg depletion. This was one of the first clinically recognized conditions involving a Mg deficit.^{12,21}

MAGNESIUM LOSS CAUSED BY STRESS

Stress causes secretion of epinephrine (adrenalin) and corticosteroids and results in Mg loss in animals and in humans.^{2,7} The types of stress that can increase Mg needs can be physical (exhausting or competitive exercise, extremes of temperature, and accidental or surgical trauma) or psychological (anger, fear, anxiety, overwork, and crowding). Subjects exposed to the vicissitudes of life may need more than the RDAs for Mg.

CARDIOVASCULAR AND NEUROMUSCULAR RISKS OF MAGNESIUM DEFICIENCY

Mg deficiency causes cardiovascular damage, and its administration is therapeutic in cardiac arrhythmia.^{7,22,23} Its suboptimal supply can have serious immediate and long-term consequences. For example, hyperirritability and convulsions mark acute Mg depletion in experimental animals.^{7,9} Similar dysfunctions have been diagnosed in humans with hypomagnesemia.²¹⁻²³ Deficiency studies, which create less severe deficiencies but impose them for longer periods,

cause myocardial necrosis and lesions of small arteries.^{7,24} It experimental animal models, high-fat atherogenic diets are more vasopathic when the diet is low in Mg and even more so with high dietary Ca, PO₄, and/or Vitamin D.^{7,24} Whet the diet also provides protein and sodium in amounts simila to the levels consumed in the United States diet, it become cardiovasopathic (CVP), causing arteriosclerosis, hyper tension, hypercholesterolemia, and myocardial infarction (MI) in 80 to 90 percent of the animals.^{7,24,25} When either the excess fat or vitamin D was removed from the diet, the M incidence was reduced by 20 percent and 40 percent, respectively, while providing a normal mineral mixture lowered M by 70 percent. However, increasing the Mg in the diet five fold, without otherwise changing the CVP diet, nearly eliminated the incidence of MI.²⁵

Epidemiologists have noted the experimental evidence linking Mg deficiency and heart disease and the clinical evidence that Mg also is useful in treating cardiac are rhythmias. 7-22-24 The incidence of sudden cardiac death is lower among people living in hard water areas than among those drinking soft water. 73-26 Hence, the higher Mg levels in hard water have been suggested as a factor that may protect against sudden cardiac deaths.

ADAPTATION TO LONG-TERM LOW MAGNESIUM

An important study with animals has illustrated the body's ability to adapt to low Mg intake.²⁷ Weanling rate that survived symptom-provoking hypomagnesemia gradually became free of overt signs of deficiency, and plasma Mg returned to normal levels. However, their ability to withstand induced stress conditions was reduced and their life spans were shortened, when compared with contro animals consuming identical diets adequate in Mg.

DIAGNOSIS OF MAGNESIUM DEFICIENCY

Plasma Mg is maintained normally within a narrow range as the result of homeostatic control, even during periods o dietary restriction.8,9 Thus, plasma hypomagnesemia is clear indication of severe Mg deficiency. However, norma plasma values are not necessarily a reliable indicator o normal tissue levels. The adapation of rats to low intakes suggests that better means of diagnosing Mg deficiency are needed.27 The amount of Mg retained over a 24-hour period after a parenteral load is given is a better index, but is cumbersome and applicable only to those with normal rena Mg clearance.7 The most valuable index is to determine sof tissue levels. The heart, particularly vulnerable to Mg inade quacy, has more rapid Mg turnover than skeletal muscle of red blood cells, usually used for biopsies. A simplified test currently is being developed using white blood cells, that are actively metabolizing cells that accurately may reflect the Mg status in soft tissues.

CONCLUSIONS

There is substantial evidence suggesting that Mg intake in the United States is marginal. Why, then, is so little attention paid to the possibility of marginal Mg deficiency? Method ological difficulties contribute, as does the interpretation of findings from nutritional studies. A definition of optimal Mg requirement is needed. Instead of focusing on studies to determine minimal Mg requirements, it is preferable to know how much of a moderately high intake is necessary to establish equilibrium.

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Blue Cross-Blue Shield Plans of New Jersey, Permanent

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Medical Education	Commissioner's Physician Advisory Committee (Representation requested by State Commissioner of Health to assist in the Diagnosis Related Group (DRG) concept—June, 1977)
aura E. Morrow, M.D Passaic	Howard D. Slobodien M.D., President Metuchen
Iging: Family, Children, and Youth, Auxiliary Committee on Liaison requested by MSNJ Auxiliary—November 19, 1972) Idward L. Blackman, M.D	Consumer Health Education, Advisory Committee of the Office of (University of Medicine and Dentistry of New Jersey) Arthur Krosnick, M.D
vmerican Medical Association Education Research 'oundation Liaison requested by AMA—October 7, 1951)	Diabetes Coordinating Council (MSNJ representation requested by Department of Health—November 10, 1980)
³ alma E. Formica, M.D., <i>Chairman, Committee on Medical Student</i> Loan Fund New Brunswick	Arthur Krosnick, M.D Trenton
Archivist Historian Appointment requested by the Medical History Society of New ersey—April, 1982)	Disputed Claims, Advisory Committee To Review MSP and HSP (Committee appointed by MSNJ with the concurrence of the New Jersey Hospital Association, per Board of Trustees—July 16, 1978)
Vorris H. Saffron, M.D	Robert H. Stackpole, M.D., Chairman Elizabeth Donald P. Burt, M.D. Morristown Frank Campo, M.D. Trenton John J. Crosby, Jr., M.D. Jersey City Armando F. Goracci, M.D. Woodbury Adolph R. Wichman, M.D. Denville
Myles C. Morrison, Jr., M.D. Morristown Michael R. Ramundo, M.D. Clifton Frank Y. Watson, M.D. Glen Ridge Paul J. Hirsch, M.D., Treasurer, Consultant Bridgewater William Greifinger, M.D., Chairman, Committee on Finance and Budget, Consultant Belleville Frank Campo, M.D., Vice-Chairman, Committee on Finance and Budget, Consultant Trenton	Frank A. Wolf, M.D. Phillipsburg Education, State Department of (Liaison requested by the Assistant Commissioner of Education— September 21, 1958) Glenn P. Lambert, M.D., Chairman, Special Committee on Child Health Flemington
Blindness, New Jersey Society for the Prevention of Requested by the Society for the Prevention of Blindness—March 19, 1978)	Epilepsy, Advisory Panel to State Director of Motor Vehicles (Established at the request of Director of Motor Vehicles—July 29, 1966)
Malcolm H. Bloch, M.D., Chairman, Committee on Conservation of Vision	J. Berkeley Gordon, M.D
Blood Bank Association, New Jersey (Liaison requested by New Jersey Blood Bank Association—April 25, 1969) Frank Campo, M.D	Howard D. Slobodien, M.D., President, Chairman Metuchen Alexander D. Kovacs, M.D., President-Elect Scotch Plains Frank Y. Watson, M.D., First Vice-President Glen Ridge Ralph J. Fioretti, M.D., Second Vice-President Rochelle Park Palma E. Formica, M.D., Chairman, Board of
(University of Medicine and Dentistry of New Jersey) Frank Campo, M.D	Trustees New Brunswick Armando F. Goracci, M.D., Immediate Past- President Woodbury

he Academy of Medicine of New Jersey

Arthur Bernstein, M.D., Secretary, Consultant South Orange Paul J. Hirsch, M.D., Treasurer, Consultant Bridgewater	Howard D. Slobodien, M.D., President
Graduate Medical Education, Advisory Council on (Representation requested by UMDNJ)	Frank Y, Watson, M.D., First Vice-President Glen Ridg Ralph J. Fioretti, M.D., Second Vice-President Rochelle Parl Palma E. Formica, M.D., Chairman, Board of
Edwin W. Messey, M.D Willingboro	Trustees
Health Care Administration Board (Appointed by MSNJ Executive Committee, per Board action July 16, 1978)	Arthur Bernstein, M.D., Secretary South Orange Paul J. Hirsch, M.D., Treasurer Bridgewate Irving P. Ratner, M.D., Chairman, Council on Legislation Willingbord
Daniel J. O'Regan, M.D Jersey City	Michael J. Doyle, M.D., Chairman, Committee on Medical
Health Maintenance Organization Projects, Advisory	William J. D'Elia, M.D. Spring Lake
Committee To Participate in the Review of (Recommended to Executive Director, State Health Coordinating Council, Department of Health)	James E. George, M.D., J.D. Woodbury Elmer L. Grimes, M.D. Cherry Hil Henry R. Liss, M.D. Chatham
Henry J. Mineur, M.D	James S. Todd, M.D Ridgewood
·	Vincent A. Maressa, Executive Director Lawrenceville Joseph D. Lucci, Director of Medical and Insurance
Health Professions Education Advisory Council (At the request of the Department of Higher Education—to serve two years beginning August, 1981)	Affairs Lawrenceville A. Ronald Rouse, Director, Special Projects Lawrenceville
William J. D'Elia, M.D Spring Lake	Legislation
Francis J. Pizzi, M.D., Alternate	(1) Federal Keymen (Mechanism established by MSNJ—April 4 1954—to serve as official intermediaries between MSNJ and the federal legislators) 14 Congressional District Keymen
(Requested by Department of Health—May, 1981)	2 Senatorial Keymen
Alfonse A. Cinotti, M.D. Jersey City Lewis L. Coriell, M.D. Camden	(2) State Keymen (Mechanism established by MSNJ—July 13, 1952) Keymen in 40 legislative districts/21 component societies (List maintained and updated by Council on Legislation and the JEM-
Highway Safety Policy Advisory Council, Governor's (Appointed by Governor—February 3, 1981)	PAC staff)
Vincent A. Maressa, Executive Director Lawrenceville	Medical Assistance Advisory Council (At the request of the New Jersey Department of Human Services—1980)
Hospital Association, New Jersey (Liaison established at request of New Jersey Hospital Association	James Q. Atkinson, M.D Medford
—December 17, 1967) Frank Y. Watson, M.D	Medical Assistants, State of New Jersey, Inc., American Association of
	(Liaison requested by Association—September 15, 1963)
Hospital Advisory Council, State Department of Health (Appointed by the Commissioner of Health for an indefinite term)	Giovanni Lima, M.D Kearny
Nicholas E. Marchione, M.D	Medical Liaison Committees (High-level conference groups for discussion and consideration of
House Maintenance, Staff Policies, and Personnel Relations (Special Committee created by Board of Trustees—September 21, 1958)	items of mutual interest) Howard D. Slobodien, M.D., <i>President</i>
Howard D. Slobodien, M.D., President, Chairman Metuchen Alexander D. Kovacs, M.D., President-Elect Scotch Plains Frank Y. Watson, M.D., First Vice-President Glen Ridge	Frank Y. Watson, M.D., First Vice-President Glen Ridge Ralph J. Fioretti, M.D., Second Vice-President Rochelle Park Palma E. Formica, M.D., Chairman, Board of
Ralph J. Fioretti, M.D., Second Vice-President Rochelle Park Armando F. Goracci, M.D., Immediate Past-	Trustees
President	President
Trustees New Brunswick Arthur Bernstein, M.D., Secretary South Orange Paul J. Hirsch, M.D., Treasurer Bridgewater	Paul J. Hirsch, M.D., Treasurer Bridgewater Vincent A. Maressa, Executive Director Lawrenceville
William Greifinger, M.D., Chairman, Committee on Finance	(1) Medical-Dental (Liaison requested by the Dental Society—June 10, 1951)
and Budget Belleville Vincent A. Maressa, Executive Director Lawrenceville	(2) Medical-Hospital
Hypertension Study Group (Department of Health)	(Liaison established by MSNJ—October 25, 1953) (3) Medical-Legal (Liaison established by MSNJ—October 25, 1953)
David Brailovsky, M.D Westfield	(4) Medical-Nursing (Liaison established by MSNJ—April 4, 1954)
JEMPAC, Conference Committee with (Established at request of JEMPAC—June 25, 1967)	(5) Medical-Osteopathic (Liaison requested by Osteopathic Association—September 17, 1961)
Irving P. Ratner, M.D., Chairman, Council on	(6) Medical-Pharmaceutical
Legislation	(Liaison established by MSNJ—July 26, 1953) Medicare Peer Review Committee
Ralph J. Fioretti, M.D., Second Vice-President Rochelle Park	(Established by the Board of Trustees, December 20, 1970, at the request of the fiscal intermediary. The Committee will review and
Judiciary and Bar, Conference Committee on Interrelations with the (Established at invitation of Supreme Court—November 17, 1963)	evaluate claims involving questions of overutilization under Medi- care. The composition of the Committee includes six groups of three members each in the fields of Family Practice, General Surgery,

Orthopedic Surgery, Internal Medicine, Ophthalmology, and Urology.)	Resolutions, Committee on Annual Meeting (Established by Board of Trustees—July 18, 1971, to review all resolutions in advance of the Annual Meeting)
New Jersey Health Sciences Group (Membership requested by the Group—January 19, 1975)	Alfred A. Alessi, M.D., Chairman
Edward G. Bourns, M.D. Jamesburg Paul J. Hirsch, M.D. Bridgewater	Augustus L. Baker, Jr., M.D. Dover Armando F. Goracci, M.D. Woodbury
Bernard A. Rineberg, M.D. New Brunswick	Safety Council, New Jersey State (Provided in Council Bylaws)
New Jersey Health Sciences Group Legislative Affairs Committee (Liaison requested by the Group—November 16, 1975)	Howard D. Slobodien, President
Irving P. Ratner M.D., Chairman, Council on Legislation	Society for the Relief of Families of Physicians in New Jersey (Liaison requested by Society—May 17, 1959)
Pharmaceutical Assistance to the Aged Advisory Council (Appointed by Commissioner of the Department of Human Ser-	Joseph R. Jehl, M.D
vices. Physician representation requested by Division of Medical Assistance—December 19, 1980)	State Board of Medical Examiners (Per Board action—December 15, 1974)
Frank J. Malta, M.D Toms River	Trustees designated to attend monthly meetings on a rotating basis (Per Board action—August 8, 1979)
Pharmacopeial Convention, the United States (MSNJ invited to appoint a delegate to serve 5-year term—August, 1980)	Alexander D. Kovacs, M.D., President-Elect Scotch Plains Martin E. Johnson, Director Public Relations and Medical Education Lawrenceville
Frank J. Malta, M.D	State Health Planning and Coordinating Council and/or Its Review Committee (SHCC) (Liaison established January 15, 1978—appointment by MSNJ President)
(Consultants in nuclear medicine appointed by Commission)	*Ralph J. Fioretti, M.D., Second Vice-President Rochelle Park
Henry J. Powsner, M.D. Princeton Theodore J. Stahl, M.D. New Brunswick Charles A. Whelan, M.D. Montclair	*Appointed 1982. Doctor Fioretti will serve in this capacity until he becomes President, at which time the new Second Vice-President will serve as his replacement.
Radiation Protection, Consultant Serving New Jersey Commission on	Student Association, Medical Society of New Jersey (Formed July 17, 1977)
(Nomination for appointment to Commission requested—July 18, 1965)	Palma E. Formica, M.D., (Chairman, Board of Trustees) New Brunswick
Frank Gingerelli, M.D Hackensack	Yolando Cillo, Student Chester
Radiologic Technology Board of Examiners (Agency of the Commission on Radiation Protection in the Department of Environmental Protection)	University of Medicine and Dentistry of New Jersey, Founda- tion of the (MSNJ representative appointed yearly by the Board of Trustees to serve as a trustee, pursuant to the Bylaws of the Foundation)
Appointment pending	Arthur Bernstein, M.D South Orange

DOCTORS' NOTEBOOK

UMDNJ Notes

Stanley S. Bergen, Jr., M.D. President

A few months ago I reported in *The Journal* of UMDNJ's granting of degrees to the Class of 1982. Now, as autumn is upon us, the focus is on the more than 2,100 students who will become physicians, dentists, and other health professionals when they are graduated by UMDNJ in the years to come.

The enrollment for 1982-1983 is broken down as follows: UMDNJ-New Jersey Medical School, Newark, 676; UMDNJ-Rutgers Medical School, Camden, 60; UMDNJ-Rutgers Medical School, Piscataway, 416; UMDNJ-New Jersey School of Osteopathic Medicine, Camden, 169; UMDNJ-New Jersey Dental School, Newark, 338; UMDNJ-Graduate School of Biomedical Sciences, 95; UMDNJ-Graduate School of Biomedical Sciences of Rutgers Medical School, 80, and UMDNJ-School of Health Related Professions, 316.

In addition to the new faces in the student body, the school year brings with it a number of new developments in all of the areas encompassed by a health sciences university.

A major focus for the University during the coming year will be health promotion. Several such programs have been introduced recently that focus on different segments of the population.

"Good Health," a program for health screening in the workplace, is under the direction of Norman Lasser, M.D., Associate Professor of Medicine at UMDNJ-New Jersey Medical School, Newark, and Director of the school's Preventative Cardiology Program. Funded by a grant from the American Heart Association, Dr. Lasser and UMDNJ physicians, nutritionists, counselors, and psychologists have been conducting health screening for employees of Chubb and Sons, insurance under-

writers of Short Hills. Dr. Lasser reports that 600 Chubb employees have had their weight, height, blood pressure, and cholesterol levels checked by our university's team. If the screening reveals any abnormal conditions, employees with health problems usually are referred to their own physicians.

A second program will benefit 400 children in two New Brunswick elementary schools. Under a three-year, \$352,795 grant from the Robert Wood Johnson Foundation, the youngsters will receive full physical examinations, nutritional status assessments, and, if needed, immunizations. Under the auspices of UMDNJ-Rutgers Medical School, Piscataway, and its primary teaching component, Middlesex General Hospital, Dr. Elliott Goldberg, Assistant Professor in Pediatrics at the school, will work with school nurses and educators in order to identify early health and emotional problems.

Another program of UMDNJ-Rutgers Medical School involves victims of morbid obesity-those who are overweight by at least 100 pounds. Thus far, 22 patients have undergone an innovative surgical technquie which involves stapling closed a portion of the upper stomach just below its juncture with the esophagus. Our physicians report encouraging results. However, since obesity is not a surgical problem but a psychological one, the procedure involves the screening of patients by a surgeon, a psychiatrist, and a nutritionist. Involved in the project are Robert E. Brolin, M.D., Assistant Professor of Surgery at the Piscataway-based medical school, Daniel Greenfield, M.D., Assistant Professor of Psychiatry, and Karen Kasnetz, a clinical dietician.

A research project involving leprosyinfected armadillo tissue may lead to a vaccine for preventing the disease in humans, reports Tamotsu Imaeda, M.D., Professor of Microbiology at UMDNJ-New Jersey Medical School, Newark. Dr. Imaeda, who presented his results to the International Congress of Microbiologists meeting, explained that the 100 percent similarity between human and armadillo leprosy is significant since human leprosy bacteria could not be cultivated in the laboratory for study.

Concurrent with our university status. we have initiated other nomenclature changes for UMDNJ's various facilities. For your information and future reference these changes are, at our Newark Campus: UMDNJ-University Hospital, from UMDNJ-College Hospital; UMDNJ-School of Health Related Professions, from UMDNJ-School of Allied Health Professions; UMDNJ-Community Mental Health Center of New Jersey Medical School, from UMDNJ-Community Mental Health Center. Meanwhile, UMDNJ-New Jersey Medical School, UMDNJ-New Jersey Dental School, UMDNJ-Graduate School of Biomedical Sciences, and UMDNJ-George F. Smith Library of the Health Sciences retain their orginial names.

At our Piscataway campus, UMDNJ-Rutgers Medical School retains its original nomenclature, as does the UMDNJ-Community Mental Health Center of Rutgers Medical School. And, at our Camden campus, UMDNJ-New Jersey School of Osteopathic Medicine keeps its original designation as does UMDNJ-Rutgers Medical School of Camden.

Correction

In the June, 1982, issue, the article entitled "Physician's Responsibilities Under the New Jersey Controlled Dangerous Substances Act" contained an error. Schedule II prescriptions are limited to a 30-day supply or a 120-dosage quantity, whichever is the lesser amount.

MSNJ Auxiliary

Linda B. Hirsch President

At the State Executive Board meeting on July 12, 1982, several important projects were introduced and were approved for the coming year.

County auxiliaries agreed to participate in the 1982 Eye Health Screening Program conducted during the week of September 20, 1982, following a request from Howard Slobodien, M.D., MSNJ President

The State Auxiliary Legislation Chairperson, Mrs. Angie Campo, is planning a trip to Washington, D.C., on April 13 to 14, 1983, offered to Auxiliary members. The itinerary includes individual visits with members of Congress, dinner with an AMA lobbyist for legislation update, a tour of the AMA office building, a visit to Lombardi Career Research Center in Georgetown, and a tour of the White House.

A seminar on stress will be held on April 30, 1983, during the State Auxiliary Annual Meeting in Atlantic City. The program will include speakers with expertise on the stress encountered during the early, middle, and later years of life.

Our State Membership Committee will attempt to help reorganize Cumberland, Hunterdon, Monmouth, and Morris County auxiliaries. Committee members regularly will assist with specific problems of recruitment and retention of members.

Medical Philately Joseph H. Kler, M.D.

SURGICAL INSTRUMENTS

Prior to the development of asepticantiseptic surgical techniques, the instruments pictured in the stamp actually were used to produce infections to combat various maladies, particularly those for which effective remedies were not known. To produce these infections, a woolen string was passed through a channel made in the subcutaneous tissue in the neck, using a red-hot iron, through which a woolen string was placed. The string was soaked in oil or some fatty substance, usually goose

grease. The string, not being sterile, introduced an infection and the "laudable



Instruments Used To Produce Infections German Democratic Republic, 1981

pus" produced was expected to combat the ailment of the patient and also to relieve pain. This method of treatment was practiced widely during the 17th and 18th centuries.

SURGICAL INSTRUMENTS

The "lithotome cache" (pictured in the stamp) first was described by the French physician, Pierre Franco. The instrument was improved technically by the French surgeon, Pierre Come. Urinary bladder stones were very common into the mid-19th century, but especially common during the 18th century. This instrument was introduced into the



Urologic Instruments German Democratic Republic, 1981

urinary bladder through the perineum; a small knife was released and the incision was made into the bladder directly to the stone. The surgeon expressed the stone by pressure over the abdomen and counterpressure through the rectum. These operations usually were done without any anesthesia and these doctor "lithotomists" developed unbelievable dexterity. Modern anesthesia eliminated this operative method completely.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Offices of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY—S.K. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Partnership or group. Available.

CARDIOLOGY—Mohammad Riaz, M.D., 853 Avenue Z, Brooklyn, NY 11235. Khyber (Pakistan) 1971. Board eligible. Group or partnership. Available.

Madhusudhan T. Gupta, M.D., 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Also, general internal medicine. Board certified (IM). Solo, group, partnership. Available.

FAMILY MEDICINE—Railton Leonard Green, M.D., 64 Martin Dr., Harrington Park, NJ 07640. University of Cape Town (South Africa) 1959. Partnership or group. Available.

Michael A. Kazakoff, M.D., 4216 Wilson Ave., Montreal, Quebec, Canada H4A 2T9. McGill 1974. Board certified. Any type practice. Available.

Jeffrey P. Tannenbaum, M.D., 3 Brookhill Dr., Schenectady, NY 12309. Boston 1977. Board certified. Group or partnership. Available.

GASTROENTEROLOGY—Muhammad A. Nyazee, M.D., 1650 Selwyn Ave., Bronx, NY 10457. Also, general internal medicine. Board certified (IM). Solo or group practice, partnership, academic (gastroenterology). Available.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available.

Robert H. Bleicher, M.D., 215 E. Chicago Ave., Apt. 2006, Chicago, IL 60611. Columbia 1978. Board certified (IM). Group, partnership, solo. Available July 1983.

Joseph S. Palin, M.D., 509 Maiden Lane, Birmingham, AL 35226. Baylor College of Medicine 1977. Also, internal medicine. Board eligible. Board certified (IM). Partnership, group, solo. Available July 1983.

GENERAL PRACTICE—Samuel Saland, M.D., 125-F Galaxy, 7000 Boulevard East, Guttenberg, NJ 07093. Berne (Switzerland) 1934. Board certified (FP). Subspecialty, alcoholism (detoxification, treatment, rehabilitation). Full or part time, multispecialty group, associate, preferably in vicinity of Fort Lee or Guttenberg area. Available.

Samir M.Á. Yassiw, M.D., 636 Brooklyn Ave., Apt. 31, Brooklyn, NY 11203. Shams University (Egypt) 1960. Solo. Available. K.S. Kim, M.D., 2825 Ashwood Dr., Chesapeake, VA 23321. Yonsei (Korea) 1971. Also, pathology. Board certified (both specialties). Group, partnership, solo, hospital based. Available.

Arthur Tutela, M.D., 132 Midland Place, Newark, NJ 07106. Bologna (Italy) 1974. Also, internal medicine. Group, partnership, clinic, institution. Available.

INTERNAL MEDICINE—Harry N. Brandeis, M.D., Ten Overlook Rd., Apt. 51, Summit, NJ 07901. Bologna (Italy) 1979. Board eligible. Group, partnership, solo. Available.

Steven Fischkoff, M.D., 6792 Pyramid Way, Columbia, MD 21044. Pennsylvania 1976. Subspecialty, oncology. Board certified (both). Group or partnership. Available.

Jae O. Park, M.D., 9542 W. Pickwick, Taylor, MI 48180. Chonnam (Korea) 1969. Board eligible. Hospital based or group. Available.

Curtis A. Wushensky, M.D., 3437 Fifth Ave., Apt. 506, Pittsburgh, PA 15213. University of Pittsburgh 1979. Board eligible. Salaried, hospital, locum tenes, emergency room, Available.

Ellis R. Levin, M.D., 223 Pacific St., Apt. D, Santa Monica, CA 90405. Jefferson 1975. Subspecialty, endocrinology. Board certified. Group, associate, partnership. Available.

Joseph S. Palin, M.D., 509 Maiden Lane, Birmingham, AL 35226. Baylor College of Medicine 1977. Also, gastroenterology. Board certified. Partnership, group, solo. Available July 1983.

Alan Lichtbrouh, c/o Irwin Zucker, 200 Sunset Ave., Westfield, NJ 07090. SUNY-Downstate 1977. Also, rheumatology. Board certified. Group, solo, partnership. Available.

Christopher Ying, M.D., 250 Com-

monwealth Ave., Apt. 11, Boston, MA 02116. Columbia 1977. Also, nephrology. Board certified. Group or partnership. Available June 1983.

NEPHROLOGY—Christopher Ying, M.D., 250 Commonwealth Ave., Apt. 11, Boston, MA 02116. Columbia 1977. Also, internal medicine. Board certified (IM). Group or partnership. Available June 1983.

OBSTETRICS/GYNECOLOGY—Yvonne S. Thornton, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/fetal medicine. Board certified (both). Partnership or group (single specialty), Morris or Middlesex counties preferred. Available.

Ibrahim Beruti, M.D., 1236 Napoleon St., Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified. Solo. Available.

Gary S. Rosenberg, M.D., 245-20 Grand Central Parkway, Bellerose, NY 11426. SUNY-Downstate 1977. Board eligible. Group or partnership. Available.

Richard Malafy, M.D., 8716 East Spanish Barb. Trail, Scottsdale, AZ 85258. UMDNJ 1971. Board eligible. Any type practice. Available.

Steven Birnbach, M.D., 300 Community Dr., Manhasset, NY 11030, SUNY-Downstate 1979. Board eligible. Solo, group, partnership. Available July 1983.

Gary C. DeGrande, M.D., 201 Seeley Road, H-3, Syracuse, NY, SUNY-Upstate Medical Center. Board eligible. Group or partnership. Available July 1983.

OPHTHALMOLOGY—Shearwood J. Mc-Clelland, M.D., 11319 Schuylkill Road, Rockville, MD 20852. Columbia 1974. Board certified. Partnership or group. Available January 1983.

Michael Hostovsky, M.D., 4100 West 36th St., Minneapolis, MN 55416. Hadassah (Israel) 1972. Also, neuro-ophthalmology. Board eligible. Single or multispecialty group. Available.

Jasvinder Singh, M.D., 500 Central Ave., Apt. 702, Union City, NJ 07087. Lady Hardinge (India) 1970. Board eligible. Partnership, group, HMO. Available.

OTOLARYNGOLOGY—Arnold I. Charow, M.D., 6 Country Club Dr., Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.)

PATHOLOGY—S.A. Hadi, M.D., 50 S. Chillicothe St., South Charleston, OH 45368. Gandhi Medical (India) 1964. Board certified (PA). Group. Available.

K.S. Kim, M.D., 2825 Ashwood Dr., Chesapeake, VA 23321. Yonsei (Korea) 1971. Also, general practice. Board certified. Group, partnership, solo, hospital based. Available.

PEDIATRICS—Jogesh Dugal, M.D., 135-17 Coolidge Ave., Kew Gardens, NY 11435. Lady Hardinge (India) 1970. Special interest, child development. Board eligible. Group or partnership. Available.

Suraiya I. Alvi, M.D., 1234A Birch St., Fort Dix, NJ 08640. Hyderabad (India) 1960. Board eligible. Group, partnership, multispecialty group. Available.

Allan Gideon Plaut, M.D., 265-02 74th Ave., Glen Oaks, NY 11004. SUNY-Downstate 1977. Board eligible. Multispecialty group, partnership, prepaid health plan. Available.

PULMONARY DISEASES—Melvin Polkow, M.D. 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Also general internal medicine. Board certified (IM). Group, partnership, hospital based. Available.

K.J. Shah, M.D., 44-36 Kicham St., Elmhurst, NY 11373. G.S. Medical (India) 1976. Also, general internal medicine. Board certified (IM). Group or solo (hospital based). Available.

PULMONARY MEDICINE—Rajapuram R. Kumar, M.D., 14500 S. McNab Ave., Apt. 1403, Bellflower, CA 90706. Kurnool Medical College (India) 1973. Board certified (IM). Solo or partnership. Available July 1983.

RADIOLOGY—Stephen Phillip Laufgraben, M.D., 19 Poplar Ave., Wheeling, WV 26003. University of Arkansas 1973. Board certified. Single-specialty group, hospital based, private. Available.

M. T. Centanni, M.D., Box 222, Bloomfield, NJ 07003. Bologna (Italy) 1970. Board certified. Group or hospital (full time). Available.

RHEUMATOLOGY—Alan Lichtbrouh, c/o Irwin Zucker, 200 Sunset Ave., Westfield, NJ 07090. SUNY-Downstate 1977. Also, internal medicine. Board certified (IM). Group, solo, partnership. Available.

SURGERY, GENERAL—Robert C. Kahn, M.D., 2516 North 4th St., Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available.

Are You Moving?

If so, please send change of address to *The Journal*, Medical Society of New Jersey, Two Princess Road, Lawrenceville, NJ 08648, at least six weeks before you move.

Name			
Address			
City	State	Zip	
County			
Attach mailing label from 7			

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Milan (Italy) 1972. Also colon and rectal surgery. Group or partnership, Available.

Alan Berger, M.D., 10 Landing Lane, Apt. 1P, New Brunswick, NJ 08901. Temple 1976. Also, vascular surgery. Board eligible. Group or partnership. Available.

Rao S. Bhatraju, M.D., 10030 North 43rd Ave., Apt. 1066, Glendale, AZ 85302. Guntur (India) 1973. Also, vascular surgery. Board eligible. Group, partnership, solo. Available July 1983.

Tun S. Chu, M.D., 326 Madison Ave., New Milford, NJ 07646. National Defense Medical College (Taiwan) 1974. Also, vascular surgery. Board certified. Solo, partnership, group. Available.

SURGERY, ORTHOPEDIC-Robert P. Mantica, Box 7694 Naval Regional Medical Center, Guam, FPO San Francisco 96630. Cornell 1975. Board eligible. Group or partnership. Available July 1983.

SURGERY, PLASTIC-Gerald Siemsen, M.D., 3325 East English, Apt. 204, Wichita, KS 67218. Kansas 1957. Board certified. Industrial medicine, research, pharmaceutical or insurance company, institutional medicine. Available.

SURGERY, VASCULAR-Alan Berger, M.D., 10 Landing Lane, Apt. 1P, New Brunswick, NJ 08901. Temple 1976. Board eligible. Group or partnership. Available. Rao S. Bhatraju, M.D., 10030 North 43rd

Ave., Apt. 1066, Glendale, AZ 85302. Guntur (India) 1973. Also, general surgery. Board eligible. Group, partnership, solo. Available July 1983.

Tun S. Chu, M.D., 326 Madison Ave., New Milford, NJ 07646. National Defense Medical College (Taiwan) 1974. Also, general surgery. Board certified. Solo, partnership, group. Available.

ROLOGY-Ramesh K. Chopra, M.D., 1920 S. First St., Minneapolis, MN 55454. Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available.

Frederick Greenstein, M.D., 732 E. 91st St., Brooklyn, NY 11236. SUNY-Downstate 1972. Board eligible. Group, partnership, academic, solo. Available.

H.S. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Group, partnership, solo. Available.

Richard A. Chazkel, M.D., 201 East 25 St., New York, NY 10010. Hahnemann 1976. Board eligible. Group, solo, partnership.

Tiido Kallas, M.D., 714 Parsons Rd., Ridgewood, NJ 07450. NY Medical 1965. Board eligible. Group or partnership.

Arthur Israel, M.D., 435 East 70th St., New York, NY 10021. Cornell 1978. Board eligible. Group, partnership, solo. Available July 1983.

Vinaitheertha P. Nagarajan, M.D., 61 Maple Ct., Apt. 4, Snyder, NY 14226. Tirunelveli Medical College (India) 1973. Board eligible. Solo or group. Available July 1983.

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 Pentylenetetrazoie
 100 mg.

 Nicotinic Acid
 100 mg.

 Ascorbic Acid
 100 mg.

 Thiamine HCL
 25 mg.

 i-Glutamic Acid
 50 mg.
 Niacinamide 5 mg AVAILABLE: Bottles 100, 500, 1000

SIDE EFFECTS: Most persons ex-SIDE EFFECTS: MOST persons of persence a flushing and tingling sensation after taking a higher potency nicotinic acid. As a secondary reaction some will complain of nausea, sweating and abdominal cramps. The reaction is usually transient.

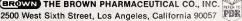
INDICATIONS: As a cerebrai stimulant and vasodilator, RECOMMENDED GERIATRIC DOSAGE: One capsule three times daily adjusted to the indi-vidual patient.

WARNING: Overdosage may cause muscle tremor and convulsions.

CONTRAINDICATIONS: Epilepsy or low convulsive threshold. CAUTION: Federal law prohibits dispensing without prescription. Keep out of reach of children.

Write for literature and samples

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Housing Application

217th ANNUAL MEETING THE MEDICAL SOCIETY OF NEW JERSEY April 29-May 2, 1983

Resorts International (headquarters hotel)	Single \$75.50	Twin \$75.50	Daily Rates \$161/\$201
Caesar's Boardwalk Regency	\$70.00	\$70.00	Rates quoted upon request
Claridge Hotel	\$65.00	\$65.00	Rates quoted upon request

Rates subject to 12% state and local taxes

ALL hotel reservations for the 217th Annual Meeting, MSNJ, will be handled by the Atlantic City Convention Bureau. Please send your housing application directly to the Bureau, 16 Central Pier, Atlantic City, NJ 08401. Complete your 1st, 2nd, and 3rd choices of hotel. All Delegates and Members are urged to make their hotel reservations early. Blocks of rooms will be available at Resorts International (headquarters hotel), the Claridge Hotel and Casino, and Caesar's Boardwalk Regency. The reservations deadline at all three hotels is March 29, 1983.

MAIL THIS APPLICATION DIRECTLY TO THE ATLANTIC CITY CONVENTION BUREAU 16 Central Pier Atlantic City, NJ 08401

Please list 1st, 2nd, and 3rd choices; confirm	ation will come directly from ho	tel.		
1st Choice	2nd Choice			
3rd Choice				
Accommodations desired: Single Twin Suite Parlor & 1 Bedroom Suite Parlor & 2 Bedrooms				
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Address				
City	State	Zip		
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Will arriveTime	Will depart	Time		
☐ Check if Official Delegate	County			

LETTERS TO THE EDITOR

The Learning-Disabled Child

July 14, 1982

Dear Dr. Krosnick:

This letter is written in response to your publication of a report offering medical treatment for an educational problem, "Medical Evaluation and Treatment of Eighth-Nerve Disorders in the Learning-Disabled Child" by Westerman, Gilbert, and Madusky. The article appeared in the February, 1982, issue of The Journal. We feel this paper requires critical comment because of its potential impact on a field already scarred by controversy and confusing claims. What is needed are studies that adhere to the principles of the scientific method in order to establish a sound knowledge base. This report falls far short of this scientific obligation. We offer the following criticisms:

The authors state: "During the past ten years, much research has been conducted with regard to vestibular function disorders in the learning-disabled child."

The authors support this generalization by citing three references: a book, a presented paper, and a non-medical journal. We do not find the volume of research claimed by the authors to support their assumption. There does not appear to be a research core which has been reported in peer-reviewed scientific journals. It should also be noted that references 2 and 4 are the same, references 1, 6, and 7 are one and the same—of the references in this paper, only seven references are different.

The authors state: "Forty-one children were tested with a complete battery of tests. All children had been diagnosed by a child study team as learning disabled and/or dyslexic."

The reader is not provided with vital information to assess the diagnostic classification. "Learning disabled" represents a heterogeneous group of disorders which generally impair academic progress. The reader is not informed about the type of disability or its severity.

There is a multitude of essential facts which were not included in this report: age and sex of the subjects, results of neurological examinations, intelligence levels, areas of academic difficulty, attempts at special education, and other pertinent data. The study population is very poorly defined.

There is no information regarding matched controls. Did the study design include controls?

The authors report: "Thirty-seven children revealed deficits in the battery of tests administered (91 percent). Thirty-one children (76 percent) showed deficits in ENG testing."

The reader is left to his/her imagination in speculating about what kinds of deficits occurred and were being reported. There is no description of what constitutes a deficit and/or its relative severity. The authors do not comment on the incidence of these "deficits" in a normal population, i.e. a control group.

The authors state: "The 17 children diagnosed as having hypofunction of the vestibular system were treated with therapeutic doses of meclazine HC1 and/or dyphenhydramine hydrochloride."

It is impossible from the description to determine which subject received a designated therapy, the dosage of the medication, and/or the specific effects of the drugs. The lack of specific information regarding drug usage is a factor rendering the report extremely difficult to evaluate.

There are several general comments that must be offered in response to this report:

- (1) The vague delineation of the population studied, the lack of specificity in descriptions of drug usage, and the generalizations of "improved" and "continuing to progress" make this study impossible to replicate.
- (2) "Subclinical defects, although compensated for by higher centers of the brain for gross balance problems, can cause significant learning-disability disorders which now can be measured and treated medically" represents a categorical assumption without clinical evidence or foundation in principles of

basic science.

(3) The failure to report on controls is contrary to the principles of the scientific method.

This report now leaves the burden of responsibility on others, to prove or disprove the authors' conclusions, by utilizing a study protocol which employs scientific design.

We feel that this report has done more to confuse than to enlighten.

(signed) Marvin I. Gottlieb Ph.D., M.D. Director, Institute for Child Development

(signed) John E. Williams, M.D. Chief, Section of Developmental Pediatrics

(signed) Damon M. Fellman, M.D. Consultant in Pediatric Neurology Institute for Child Development

(signed) Donald I. Schiffman, M.D. Director, Department of Pediatrics

August 3, 1982

Dear Dr. Krosnick:

In regard to the letter by Dr. Gottlieb, other professionals with whom we work wished to contribute to the response.

We feel that the evaluation of learning disabilities requires a "multispecialist" approach encompassing professionals in medical and educational fields as well as other related areas, both in regard to diagnosis and treatment. Two of our references (H.N. Levinson, M.D., and J.B. deQuiros, M.D., Ph.D.) provide not only extensive original research on the subject, but also include over 200 references from medical journals and journals from related fields. Every discipline including education, psychology, nutrition, occupational therapy, and optometry, as well as individual physician specialty areas have made significant inroads into the problem of learningdisabled children as revealed by studies in their specific journals. Exclusion of the work of nonmedical personnel in this area would be a serious mistake.

The important underlying factor in this work is the fact that in "blind" studies conducted by Levinson, 90 percent of the children with learning disabilities examined by physicians from seven different medical centers revealed a dysfunction on electronystagmographic studies, indicating pathology. In cases such as these, a medical diagnosis of vestibular function disorder enables educators to provide a more exact educational prescription. We followed the basic principles of Dr. Levinson and Dr. deQuiros in our testing and support their basic assumptions.

There are no clear-cut answers to the problems of learning disabilities and their relation to subclinical eighth-nerve defects. However, there appears to be a definite relationship in a significant number of cases and further work should be performed.

(signed) S. Thomas Westerman, M.D. (signed) Liane M. Gilbert, M.A. (signed) Linda Gray Madusky (signed) Sidney Groffman, M.A. Associate Editor Journal of Visual Therapy (signed) Paul Silbert, M.D. Assistant Professor Clinical Neurology Rutgers Medical School (signed) Jerome Lasky, O.D. Assistant Director Monmouth Reading Center (signed) Roger W. Gilbert, M.S. School Psychologist (signed) Albert A. Rienzo, M.D. Acting Chief Otolaryngology Monmouth Medical Center August 10, 1982

Dear Dr. Krosnick:

This letter represents a few comments concerning the response of Gottlieb et al. to the article by Westerman et al.

The response effectively states that its writers would have preferred an article of greater length and specificity; that the references are original but that seven of ten references are not all medical references makes salient that the response writers may not be familiar with nonmedical referenced research, especially that of other learning-disability specialists (of which medicine is only a contributor-albeit an important one). For example, H.N. Levinson refers to over 100 studies in his book. As the Westerman et al. effort seemed to me to represent an outgrowth and clinically obtained restatement of such a basic research base, it does appear that much research has been conducted concerning vestibular function in the learning-disabled child.

Concerning the heterogeneity of the learning-disabled children studied by Westerman, Gottleib et al. may have missed the point as they call for a further breakdown of the children studied with the learning-disabled label. Indeed, that label may be unfortunate, but it is the one written into federal and other education/health law, and espoused by various groups (e.g. the U.C.A.C.L.D. stands for the Union County Association of Children with Learning Disabilities). More importantly, it seems that Westerman's major point was that the homogeneous factor he was trying to

isolate was not the label, but the pathology extant across heterogeneous subjects. He seems to have accomplished that in line with those who obtained similar results, as referenced.

The response further makes the point that a control group approached for experimental analysis would yield better pharmacological, ENG testing, and other relevant data than the empirical fact finding Westerman chose. Those hopes may have merit. However, the control group approach, save the fact that it accounts for regression of results toward the mean, also would mandate a retesting of the obvious. Indeed, such an approach would effectively restandardize the norms of ENG procedures, and, clearly, that was not Westerman's major goal. As an empirical support for the previous body of referenced research, then, Westerman apparently is not seeking replication of his work as his work itself is but a partial replication of research extant in the literature.

Perhaps Westerman, Gilbert, and Madusky will elaborate with greater precision the data critical for peer review in a future, longer presentation. For the moment, the account as presented did not leave me, as one observer, mystified or enlightened, but interested. Rather, I hope, as may Gottleib et al., that more updated experimental type information will be forthcoming from the medical component of learning-disabled service professionals, especially otorhinolaryngologists concerning learning disabilities and eighth-nerve function.

(signed) James McMahon, Psy.D.

PERSONAL ITEMS

Orthopedic Symposium Published

The Orthopedic Clinics of North Amerca: Symposium on Office Orthopedic Practice was published in July, 1982, by V.B. Saunders Company. The disinguished guest editors of this volume re Paul J. Hirsch, M.D., and Stuart A. Hirsch, M.D., members of our Somerset County component, In addition, Dr. aul Hirsch is Treasurer of the Medical lociety of New Jersey and Chairman, Committee on Publication. The brothers re members of the American Medical Association, Diplomates of the Amerian College of Orthopedic Surgery, and Fellows of the American Academy of Orthopedic Surgeons and of the Amerian College of Surgeons.

The volume deals with orthopedic roblems that can be treated in an office etting rather than by hospitalization or surgery. The objective of this book, according to Drs. Paul and Stuart Hirsch, is "to bring to the practicing orthopedic surgeon the management problems of those who have special expertise in a particular area of office orthopedic practice."

G.H.

Dr. Johnson Elected Second Vice-President of AOMA

Dorothea Ruth Drews Johnson, M.D., of Basking Ridge, has been elected Second Vice-President of the American Occupational Medical Association. Born in 1930, Dr. Johnson was graduated from the Medical College of Pennsylvania in 1956; she completed an internship at the college hospital in 1957.

Dr. Johnson has been associated with AT&T Long Lines, Bedminster, since 1957; she has served as Physician-in-Charge (1957 to 1965), Area Medical Director (1965 to 1978); and as Corporate Medical Director (1978 to the present).

A member of our Somerset County component, Dr. Johnson is a member of the American Medical Association and a Diplomate of the American Board of Medical Examiners.

In 1980, Dr. Johnson received the Physician's Recognition Award from the American Medical Association.

The American Occupational Medical Association is a 4,000-member organization with headquarters in Chicago.

CME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, The Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

CARDIOLOGY

Nov.

16 Nuclear Cardiology 12 noon—St. Mary's Hospital, Orange (AMNJ)

8 Antiarrhythmic Therapy-Calcium Channel Blockers

2 p.m.—John E. Runnells Hospital of Union, Berkeley Heights (AMNJ)

19 Thromboembolism and Thrombolytic Therapy

12 noon—Freehold Area Hospital (AMNJ)

Dec.

9 Practical Measures in Rehabilitating the Cardiac Patient 5-6:30 p.m.—Somerset Medical Center, Somerville (Somerset Medical Center and AMNJ)

THE DEPARTMENT OF PROFESSIONAL LIABILITY CONTROL

MEDICAL SOCIETY OF NEW JERSEY
presents

A MEDICOLEGAL SEMINAR

PROFESSIONAL LIABILITY: WHAT'S AHEAD FOR THE NEW JERSEY PHYSICIAN

Wednesday, October 20, 1982

MEDICAL SOCIETY OF NEW JERSEY
Executive Offices
Two Princess Road
Lawrenceville, New Jersey 08648

Morning Session 9:00 a.m.-12:00 p.m.

OPENING REMARKS

Howard D. Slobodien, M.D.

President, Medical Society of New Jersey

"A SURVEY OF PROFESSIONAL LIABILITY"

James E. George, M.D., J.D.

Director, Department of Professional Liability Co. trol in the Society of New Jersey

"CLAIMS AND SUITS: WHAT'S HAPPENING

Peter Sweetland, President

New Jersey State Medical Meritite

"PROFESSIONAL LIABILITY A DEROE OF THE STATE AND OF MEDICAL

EXAMINERS OF NEW JE SEY"

Irving Plain, D.

Memb Sate oar Medical Examiners

Joan G

Deputy A of ev Genera

unc 2:00 p.m.-12:45 p.m.

Afternoon Session 12:45 p.m.-4:00 p.m.

"PROFESSIONAL LIABILITY AND THE ROLE OF THE NEW JERSEY DEPARTMENT OF INSURANCE"

Warren P. Cooper, Chief Actuary

Property/Liability, New Jersey Department of Insurance

"AN UPDATE OF RULE 4:21 PANEL HEARINGS"

Frances K. Boronski, Esq.

Chief, Civil Court Services Administrative Office of the Courts

"AN ALTERNATIVE: PROPOSED PROFESSIONAL LIABILITY LEGISLATION

Vincent A. Maressa, Executive Director

Medical Society of New Jersey

Watch your mail for registration information or call the Medical Society of New Jersey for advance registration: (609) 896-1766.

Registration Fee:

Nonmembers of MSNJ

\$25.00

Members

NONE

Accredited for 51/2 CME credits-Category 1

- 15 Update of Congestive Heart Failure 1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)
- 18 Treatment of Cardiogenic Shock 8-10 a.m.—Newcomb Hospital, Vineland (Newcomb Hospital)
- 21 Newer Cardiac Drugs
 11 a.m.—Greystone Park Psychiatric
 Hospital
 (AMNJ)
- 21 Indications for Invasive Studies in Cardiology 12 noon—St. Mary's Hospital, Orange (AMNJ)

MEDICINE

Nov.

- 3 · Colitis 10:30 a.m.—St. Mary's Hospital, Passaic (4MNI)
- 3 Medical Grand Rounds 11:30 a.m.—VA Medical Center, East Orange (Endocrinology Section of AMNJ)
- 3 Dinner Meeting 6-9:30 p.m.—Holiday Inn, East Orange (Endocrinology Section of AMNJ)
- 3 Clinical Approach to Community and Hospital-Acquired Pneumonias
 - Hypokalemia
 9-11 a.m.—Middlesex General Hospital,
 New Brunswick
 (NJ Academy of Family Physicians and
 AMNJ)
- 3 Immunologic Factors in Acute and Chronic Lung Injury
- 17 To be announced
- 24 Diagnosis and Management of Esophageal Disorders 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)
- 3 Renal Conferences in Nephrology
- 17 4-5 p.m.—UMDNJ University Hospital, Newark (Nephrology Society of NJ and Nephrology Section of AMNJ)
- 3 Endocrine Conferences
- 10 3:30-5 p.m.—Rotates between
- 17 Newark Beth Israel Medical Center,
- 24 UMDNJ-University Hospital, Newark, United Hospital, and VA Medical Center, East Orange (Endocrinology Section of AMNJ)
- 3 The Appropriate Use of Antibiotics 9-10 a.m.—Greater Paterson General Hospital, Wayne (Passaic County Medical Society, Passaic Valley PSRO, and AMNJ)
- 4 Hypertensive Urgency 11 a.m.-12:30 p.m.—St. Joseph's Hospital & Medical Center, Paterson (St. Joseph's Hospital and AMNJ)
- 4 Systemic Lupus Erythematous 9 a.m.—Freehold Area Hospital (AMNJ)
- 4 Medical Grand Rounds 9:30 a.m.—Newark Beth Israel Medical Center (Endocrinology Section of AMNJ)
- 5 Medical Grand Rounds 11:30 a.m.—UMDNJ-University

- Hospital, Newark (Endocrinology Section of AMNJ) Third New Jersey Consecutive Case
- Conference 6 9 a.m.-3:30 p.m.
- 7 9 a.m.-12:15 p.m.—Scanticon Conference Center, Rt. 1, Princeton (NJ Thoracic Society and AMNJ)
- 8:15 a.m.-l p.m.—Saint Barnabas Medical Center, Livingston (Saint Barnabas Medical Center) Postgraduate Allergy Seminar on RAST-

Modern Concepts in Urologic Oncology

- Postgraduate Allergy Seminar on RAST-Based Immunotherapy 8:45 a.m.-3:30 p.m.
- 9 8:45 a.m.-3:30 p.m.
- 10 8:45 a.m.-12 noon—Tropicana Hotel, Atlantic City

(Holy Name Hospital, American Academy of Otolaryngologic Allergy, and AMNJ)

- 9 Peripheral Vascular Diseases 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)
- 10 Rheumatology 1982—New Concepts in Old Diseases 9 a.m.-1 p.m.—East Lecture Hall, Rutgers Medical School, Piscataway (NJ Chapter, Arthritis Foundation, NJ Rheumatism Association, and AMNJ)
- 10 Asbestos-Related Disease in Workers and the General Population
- 24 Postcholecystectomy Syndromes 9:30-11:30 a.m.—Riverside Hospital, Boonton (Riverside, St. Clare's, and Dover General Hospitals and AMNJ)
- 12 Scleroderma 12:15-1:15 p.m.—J.F. Kennedy Memorial Hospital, Stratford (UMDNJ-NJ School of Osteopathic Medicine, J.F. Kennedy Memorial Hospital, and AMNJ)
- 13 Hearing Loss
- 20 The Hemoglobinopathies 8-10 a.m.—Newcomb Hospital, Vineland
 - (Newcomb Hospital)
- 13 Present-Day Concepts in the Treatment of the Elderly9 a.m.-4 p.m.—Stevens Institute of

Technology, Hoboken (Hudson County Medical Society)

- 17 Diabetic Nephropathy1-2 p.m.—West Hudson Hospital,
- Kearny
 (West Hudson Hospital and AMNJ)
- 17 Dermatological Conferences 6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Hwy. I, New Brunswick (UMDNJ-Rutgers Medical School and
- AMNJ)
 17 Hodgkins and Non-Hodgkins Lymphomas
 1-2:30 p.m.—VA Medical Center, Lyons
 (VA Medical Center and AMNJ)
- 17 Hair 1:30-2:30 p.m.—Rutgers Community Health Plan, Rt. 1, New Brunswick (Rutgers Community Health Plan and AMNJ)
- 18 Office Urology for the Nonurologist-Management of the Recalcitrant UTI 5-6:30 p.m.—Somerset Medical Center,

- Somerville
 (Somerset Medical Center and AMNJ)
- 23 Recent Development in Autoimmune Thrombocytopenic Purpura 6:30-10 p.m.—Coachman Inn, Cranford (New Jersey Blood Club and AMNJ)
- 23 Antibiotics
 11 a.m.—Greystone Park Psychiatric
 Hospital
 (AMNJ)

Dec.

- 1 Diabetes 10:30 a.m.—St. Mary's Hospital, Passaic (AMNJ)
- 1 Immunology (Clinical) 11:30 a.m.—Columbus Hospital, Newark (AMNJ)*
- 1 Medical Grand Rounds 11:30—VA Medical Center, East Orange (Endocrinology Section of AMNJ)
- Hyperthyroidism Update
 1-2:30 p.m.—VA Medical Center, Lyons Bldg. 93
 (VA Medical Center and AMNJ)
- 1 Dinner Meeting 6-9:30 p.m.—Holiday Inn, East Orange (Endocrinology Section of AMNJ)
- 1 Renal Conferences in Nephrology
 15 4-5 p.m.—UMDNJ-University Hospital
- Newark (Nephrology Society of NJ and Nephrology Section of AMNJ)
- 1 Current Concepts of Insulin Secretion and Action
- 8 Nutrition in the Cancer Patient
- 22 Recent Advances in Diagnosis and Treatment of Thromboembolic Disease 9-11 a.m.—Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJ)
- 1 Contemporary Management of Thyroid Nodules
- 8 Beta-Blockers as Followup to Acute Myocardial Infarct
- 15 To be announced
- 22 To be announced 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)
 - 1 Endocrine Conferences
 - 8 3:30-5 p.m.—Rotates between
- Newark Beth Israel Medical Center,UMDNJ-University Hospital, Unite
- 22 UMDNJ-University Hospital, United 29 Hospitals Newark, and VA Medical
 - Center, East Orange (Endocrinology Section of AMNJ)
- 2 Dysfunctional Uterine Bleeding in Adolescence 9 a.m.—Freehold Area Hospital (AMNJ)
- 2 Medical Grand Rounds 9:30 a.m.—Newark Beth Israel Medical Center (Endocrinology Section of AMNJ)
- 2 Bacterial Pneumonias
- 9 Zollinger-Ellison Syndrome and Other Gastric Hypersecretory Disorders 11 a.m.-12:30 p.m.—St. Joseph's Hospital and Medical Center, Paterson (St. Joseph's Hospital and AMNJ)
- 3 Medical Grand Rounds 11:30 a.m.—UMDNJ-University

MEDICAL UPDATE FOR PRACTICING PSYCHIATRISTS

Friday and Salurday December 10 & 11, 1982

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International Hotel
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This course is designed to offer practicing psychiatrists a unique opportunity to update and review general medical knowledge as well as to discover some of the newest diagnostic and therapeutic developments. A wide range of medical and surgical topics will be discussed.

For further information contact:



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UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY

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TUITION:

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UMDNJ-Rutgers Medical School, Dept. of Environmental and Community Medicine, Box 101, Piscataway, NJ 08854; M. Gochfeld, M.D. (201)463-4771 or B. Goldstein, M.D. (201)463-4530.



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CARDIOLOGY UPDATE. . .

IS DESIGNED FOR THE PHYSICIAN AND PROVIDES AN INTENSIVE SURVEY OF THE CURRENT STATUS OF CLINICAL CARDIOLOGY. . .

WEDNESDAY, NOVEMBER 3, 1982

20 minute lectures—Questions and Answers (10 minutes)
MODERATOR: BERNARD L. SEGAL, M.D.

MANAGEMENT OF ACUTE MYOCARDIAL INFARCTION: 1982 UPDATE—CASE PRESENTATION

Irving M. Herling, M.D.

VENTRICULAR FUNCTION STUDIED BY NUCLEAR IMAGING

Abdulmassih S. Iskandrian, M.D.

PITFALLS OF CORONARY ARTERIOGRAPHY

Charles E. Bemis, M.D.

NEWER ANTIARRHYTHMIC AGENTS

Joel Morganroth, M.D.

CASE PRESENTATION/DISCUSSION

Mark F. Victor, M.D.

3:00 PM—2nd floor New College Building, Hahnemann University
• NO REGISTRATION FEE • NO ADVANCE REGISTRATION REQUIRED •
• CME CATEGORY I CREDITS CERTIFIED •

WINE & CHEESE SERVED FOLLOWING CONFERENCE

Hospital, Newark
(Endocrinology Section of AMNJ)

7 CDS Prescribing Practices
11 a.m.—Greystone Park Psychiatric
Hospital
(AMNJ)

7 CDS Prescribing Practices 1-2:30 p.m.—Christ Hospital, Jersey City (AMNJ)

8 Clinical Topics in Emergency Medicine 9 a.m.-4 p.m.—Medical Society of New Jersey, Lawrenceville (NJ Chapter of American College of Emergency Physicians and AMNJ)

8 ENT Problems Confronting the Daily Practice of Primary Care Medicine 9:30-11:30 a.m.—Riverside Hospital, Boonton (Riverside, St. Clare's, and Dover General Hospitals and AMNJ)

8 Management of C.O.P.D. 1-2:30 p.m.—VA Medical Center, Lyons Bldg. 93 (VA Medical Center and AMNJ)

8 The Recalcitrant Asthmatic 6-7 p.m.—Schering Labs, Kenilworth (NJ Allergy Society and AMNJ)

New Concepts in the Management of Back Pain 8-9 p.m.—Rancocas Valley Hospital, Willingboro (Burlington County Medical Society and AMN)

14 Extraarticular Manifestations of Rheumatoid Arthritis
12:15-1:15 p.m.—J.F. Kennedy Memorial Hospital, Stratford (UMDNJ-NJ School of Osteopathic Medicine, J.F. Kennedy Memorial Hospital, and AMNJ)

15 Laboratory Interpretations 10:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNJ)

15 Indications for Endoscopic Retrograde Cholangiopanicreatography 1-2 p.m.—West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ)

NEUROLOGY/PSYCHIATRY

Nov.

- Psychiatric Manifestations of Seizure Disorders
- 8 Neurological Complications of Lupus 5 CAT Scans—An Update

9 Arteriovenous Malformations 11:30 a.m.-12:30 p.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)

Psychiatric Case Conference
 7:30-11:30 a.m.—Trenton Psychiatric
 Hospital
 (Trenton Psychiatric Hospital and
 AMNJ)

1 Culture Shock in a Mormon Woman 8:15-10:30 p.m.—4 Garden Place, Nutley (Essex Psychiatric Seminar and AMNJ)

3 Ongoing Child Psychiatry Case

10 Conference

17 10 a.m.-12 noon—Trenton Psychiatric24 Hospital

(Trenton Psychiatric Hospital and AMNJ)

3 Psychopathology and Clinical Strategies in Caring for the Older Adult 8-10:30 p.m.—So. Orange Junior High School, So. Orange (Mental Health Association of Essex County and AMNJ)

4 Malingering

The Munchausen Syndrome
12 noon-1 p.m.—Carrier Foundation,
Belle Mead
(Carrier Foundation and AMNJ)

5 Psychiatric Lecture Series 1:30-5:30 p.m.—Trenton Psychiatric Hospital (Trenton Psychiatric Hospital and AMNJ)

Psychopharmacology 2-3 p.m.—Ancora Psychiatric Hospital, Hammonton (AMNJ)

10 Addicted Physicians and Nurses 3-4:30 p.m.—Fair Oaks Hospital, Summit (Fair Oaks Hospital and AMNJ)

Family Therapy in Medical Illness
16 9:30 a.m.-4 p.m.—Center for Health
Affairs, Princeton

17 9:30 a.m.-4 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

Dec.

2

1 Adolescent Suicide 1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)

1 Ongoing Child Psychiatry Case 8 Conference

15 10 a.m.-12 noon—Trenton Psychiatric

22 Hospital

(Trenton Psychiatric Hospital and AMNJ)

Incest: Clinical and Treatment Issues The Chronic Patient 12 noon-1 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ)

3 Psychiatric Lecture Series 1:30-5:30 p.m.—Trenton Psychiatric Hospital (Trenton Psychiatric Hospital and AMNJ)

4 Positron Emission Tomography 8-10 a.m.—Newcomb Hospital, Vineland (Newcomb Hospital)

6 School Phobia in a School Teacher 8:15-10:30 p.m.—192 Chittendon Rd., Clifton (Essex Psychiatric Seminar and AMNJ) 6 Psychiatric Case Conference

13 7:30-11:30 a.m.—Trenton Psychiatric

20 Hospital

27 (Trenton Psychiatric Hospital and AMNJ)

14 Recent Advances in Psychiatry 2 p.m.—Ancora Psychiatric Hospital, Hammonton (AMNJ)

OBSTETRICS/GYNECOLOGY

Nov.

10 Hyperprolactinemia 9-11 a.m.—Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJ)

23 In Vitro Fertilization
8-10 p.m.—Englewood Club, 115 E.
Palisade Ave., Englewood
(Englewood Surgical Society and AMNJ)

Dec.

15 The Postmenopausal Female 9-11 a.m.—Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJ)

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"NEW TRENDS IN PEDIATRIC SURGERY"

Saturday, November 13, 1982 8:00 a.m.-1:00 p.m.

at

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The program will include presentations by nationally prominent speakers on pediatric cardiac surgery, surgical approach to the jaundiced infant, intercranial pressure monitoring in neonates and older children, and pediatric urology update. The program is designed for surgeons, pediatricians and

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For further information and directions contact Dr. Richard J. Macchia at Downstate Medical School, Box #79, 450 Clarkson Avenue, Brooklyn, New York 11203 (212) 270-2554.

NEW JERSEY SOCIETY OF PATHOLOGISTS

ANNUAL SLIDE SEMINAR Saturday, November 13, 1982

UMDNJ-Rutgers Medical School Piscataway, New Jersey 9:00 a.m.-1:00 p.m.

on

"SOFT TISSUE TUMORS"

Speaker: Steven I. Hajdu, M.D.

A wide variety of cases submitted by members will be discussed. Members will receive slide sets and case histories. A limited number of slide sets are available to non-members for \$35.00

This program is approved for $3 \, \ensuremath{\rlap{/}\!\!/}_{\! 2}$ hours of continuing education credit.

For further information contact:

Cathy Gillmer

New Jersey Society of Pathologists

Two Princess Road

Lawrenceville, New Jersey 08648

Phone: (609) 896-1717

29 Obstetrics and Gynecology 10:30 a.m.—St. Mary's Hospital, Passaic (AMNJ)

PATHOLOGY

Nov.

- 4 Gene Amplification and Drug Resistance in Cultured Animal Cells
- 11 Transfection: Identification of Cellular Transforming Genes
- 18 Cellular Organelles-Cytoskeleton and Stress Fibers 4-6 p.m.—Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJ)
- 23 Dysmorphology 8:30-10 a.m. (St. Joseph's Hospital and Medical Center and AMNJ)

Dec.

- 9 Organization, Replication, and Transcription of the Mammalian Mitochondrial Genome
- 16 The Role of ER in Secretion of Membrane Biogenesis
 4-6 p.m.—Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMN)

PEDIATRICS

Nov

13 New Trends in Pediatric Surgery 8 a.m.—Newark Beth Israel Medical Center (Newark Beth Israel Medical Center and AMNJ)

RADIOLOGY

Nov.

- 6 Advanced Echocardiography
- 7 9 a.m.-5 p.m.—Nassau Inn, Princeton (National Foundation for Noninvasive Diagnostics and AMNJ)
- 17 Breast Cancer 11:30 a.m.-12:30 p.m.—Columbus

Hospital, Newark (Columbus Hospital and AMNJ)

- 17 Dinner Meeting 6:30 p.m.—The Manor, West Orange (Radiotherapy Section of AMNJ)
- 18 Renal Disease
 7:15 p.m.—Saint Barnabas Medical
 Center, Livingston
 (NJ Institute for Ultrasound in Medicine,
 Radiological Society of NJ, and
 Diagnostic Radiology Section of AMNJ)

Dec.

- 4 Real-Time, Cross-Sectional Sector
 - Scanning
 9 a.m.-5 p.m.—Nassau Inn, Princeton
 (National Foundation for Noninvasive
 Diagnostics and AMNJ)
- 9 Ultrasound of the Scrotum 7:30-9:30 p.m.—Summit Squire, Summit NJ Institute of Ultrasound in Medicine and AMNJ)
- 16 Lecture Series
 7:15 p.m.—Saint Barnabas Medical
 Center, Livingston
 (Radiological Society of NJ and
 Diagnostic Radiology Section of AMNJ)
- 23 Cardiac Imaging—Past, Present, and Future 11 a.m.-12:30 p.m.—St. Joseph's Hospital and Medical Center, Paterson (St. Joseph's Hospital and AMNJ)

SURGERY

Nov.

- 17 Cerebrovascular Insufficiency: A Surgeon's Viewpoint 1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)
- 30 The Spleen Today, When To Remove, When Not To Remove, and How To Preserve 8-9 a.m.—Greater Paterson General Hospital, Wayne (NJ Division, American Trauma Society

D

and AMNJ)

7 Phlebitis with Criteria for Patient

Admission

8-9 a.m.—Greater Paterson General Hospital, Wayne (NJ Division, American Trauma Society and AMNJ)

8 Role of Surgery in Thyroid Nodules— Recent Advances in the Management of Head and Neck Cancer 1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)

SURGICAL SPECIALTIES (includes ENT, Neurosurgery, Ophthalmology, Orthopedic, Plastic, and Vascular Surgery)

Nov.

- 3 Education and Treatment of Common Injuries
 1:30-2:30 p.m.—Rutgers Community Health Plan, Rt. 1, New Brunswick
 (Rutgers Community Health Plan and AMNJ)
- 13 New Trends in Pediatric Surgery 8 a.m.—Newark Beth Israel Medical Center (Newark Beth Israel Medical Center and AMNJ)

Dec.

- 15 Update: Intraocular Lens 11:30 a.m.-12:30 p.m.—Columbus Hospital, Newark (Columbus Hospital and AMNJ)
- 21 The Laser in Neurosurgery 8-10 p.m.—Englewood Club, 115 E. Palisade Ave., Englewood (Englewood Surgical Society and AMNJ)

MISCELLANEOUS

Nov.

- 5 Computers in Medicine 12 noon-1 p.m.—Freehold Area Hospital (AMNJ)
- 11 Starting Your Practice and Computers in
- 12 Private Practice
- 9 a.m.-5 p.m.—St. Joseph's Hospital and Medical Center, Paterson (St. Joseph's Hospital and AMNJ)

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Advances in the Treatment of Inborn Errors of Metabolism

M. D'A. Crawford, Dorothy A. Gibbs, R.W.E. Watts (eds). New York, NY, John Wiley & Sons, 1982. Pp. 365. Illustrated. (\$47)

Advances in the Treatment of Inborn Errors of Metabolism is not a practical book for physicians. However, it is a marvelous tale of research in the area of the enzymopathies. If you want to know what you will be doing in 20 years, the story starts here.

In September, 1981, some 90 scientists met in Harrow, England, to compare notes. Advances in the Treatment of In-born Errors of Metabolism is a report of that conference. Twenty papers are presented and discussed; for the most part the discussions are better than the papers.

In 1902, Sir Archibald Garrod described a case of alkaptonuria. This entity is considered the first reported inborn error of metabolism. There are now 269 diseases which are considered inborn errors of metabolism. We now are able to treat only about 14 percent of these diseases. Fortunately, for the most part, they are rare disorders.

Possible approaches to treatment include dietary restrictions (as in phenylketonuria), product replacement, mobilization of insoluble substances, environmental manipulation, enzyme inhibition, cofactor administration, enzyme administration, cell and organ transplantation, cytopharmacology, and genetic manipulation.

All these therapies are discussed. Progress is slow. Effective therapies are a long way off. One comes away from this book with tremendous admiration for the scientists doing the fighting. It is an exciting battle to watch. If you decide to read this book, keep your biochemistry textbook close by.

Solomon J. Cohen, M.D.

Cardiac Imaging in Infants and Children

Michael J. Kelley, C. Carl Jaffe, Charles S. Kleinman. Philadelphia, PA, W.B. Saunders Company, 1982. Pp. 429. (\$49.50)

It is a pleasure to read this 18th volume in the series of Saunders Monographs in Clinical Radiology (SMCR). Although most of the subject matter is complex, especially in the area of congenital heart disease, the authors have managed to write a truly enjoyable and excellent monograph. Many of the radiographs and angiocardiograms are printed from radiographs in the Hewlett Radiology Library at Yale University.

The first section of the book is devoted to cardiac imaging modalities with specific chapters on the chest radiograph, echocardiography, nuclear medicine, and the angiocardiogram.

The chapter on the chest radiograph has reemphasized the importance of this basic imaging approach and attention is directed to details of the mediastinum, pulmonary vasculature, situs, and osseous structures. The echocardiographic chapter is a fine primer on normal twodimensional echocardiographic anatomy and all two-dimensional sonographs in the book are accompanied by clearly illustrated, white-on-black background drawings. The nuclear medicine chapter is subauthored and includes a special section of clinical applicability, while the angiographic chapter describes the method and usefulness of axial or angulation angiographic projections in defining specific cardiac structures.

The second section emphasizes a clinical radiographic classification of heart disease that utilizes the key clinical subdivisions of cyanotic and acyanotic heart disease versus the key radiographic subdivisions of pulmonary vascularity namely, normal, diminished, and increased vascularity (shunt vascularity) and pulmonary venous hypertension.

These various combinations then are presented in a well-organized gamut approach to the differential diagnosis of cardiac disease.

The book also is interlaced with practical tables on the significance of various clinical and radiographic observations including syndromes associated with thoracic cage abnormalities and cardiac lesions, and surgical approaches for specific common congenital heart lesions as determined from the radiograph.

There is an abundance of information in this small book which is highly recommended to pediatric cardiologists and cardiovascular radiologists, and residents and fellows training in the same fields.

Lloyd N. Spindell, M.D.

Complications of Pediatric Surgery

Peter A. deVries and Stephen R. Shapiro (eds). New York, NY, John Wiley and Sons, 1982. Pp. 581. Illustrated. (\$55.00)

This book is a potpourri of 37 chapters, 44 contributors, and a vast array of complications seen in the major areas of surgery involving children. The authors of many of the chapters primarily are identified with expertise in their specialty and have an interest in infants and children. The remaining articles are written by pediatric surgeons, with a particular interest and expertise in a specific subject. The main thrust of the book primarily is on complications, with the hope that the book will help reduce them.

The subject matter covers the gamut including urology, gastrointestinal problems, orthopedics, biliary atresias and choledochal cysts, neurosurgery, and otorhinolaryngology.

The illustrations are adequate and the drawings helpful. The articles do not restrict themselves to complications but

discuss detailed treatment as well as differential diagnosis.

It may be a useful adjunct to the resident in any of the pediatric surgical specialties but I believe it serves a limited usefulness to the pediatrician or family practitioner, and I assume no use at all to any other field of medicine.

Albert P. Rosen, M.D.

Law for the Medical Practitioner

Charles W. Quimby, Jr. Ann Arbor, MI, Health Administration Press, 1982. Pp. 182.

In an excellent expository chapter on the law of contracts, Dr. Quimby states: "How much simpler all of this would have been if the cabbage farmer had only marked the price on his cabbages,"

Law for the Medical Practitioner is a small, well-bound volume. It presents basic concepts in law as applied to the practice of medicine. Included are discussions of the adversary system, medical malpractice, consent, contracts, and confidentiality. Dr. Quimby's style is as lucid as can be.

There are imperfections, however. There is an overly lengthy chapter on the hospital and the physician which appears to be "padded out" by the bylaws of a particular medical staff and several case reports. The chapter on confidentiality is deficient in that it does not mention the landmark Tarasoff decision regarding breach of patient privilege.

The only strange note that arose in the book is that this author, who has a definess with words and an unusual ability for clear presentation, apologizes for using the masculine singular pronoun when referring to a person whose gender is unknown.

Law for the Medical Practitioner is a great little book and this reviewer heartily recommends it for general, careful reading by the physician. Increased familiarity with legal process virtually is guaranteed.

Seymour F. Kuvin, M.D.

Management of Complications in Gynecologic Oncology

Gregorio Delgado, M.D., and Julian P. Smith, M.D. (eds), New York, NY, John

Wiley & Sons, 1982. Pp. 287. Illustrated. (\$38)

The increasing availability of gynecologists trained and certified in the subspecialty of oncology has raised clinicians' expectations of improved results, i.e. greater longevity with less disability. Previously, clinicians might have gone through the motions of treatment while secretly despairing of meaningful results.

Doctors Delgado and Smith have met the challenge posed by over 20,000 deaths annually by assembling an articulate group of oncologic specialists. The result of this work is Management of Complications in Gynecologic Oncology which offers comprehensive coverage of practically every complication that might be encountered in the management of patients with gynecologic cancer.

The material is presented systematically, starting with general surgical considerations and then dividing the remainder into surgical and medical complications, including roentgenologic problems. Although the book seems to be of value as a textbook for resident physicians who will be spending several months in gynecologic oncology, it also should be of value to clinicians who refer patients to oncologists. Frequently, referring clinicians are called upon to participate in the management of complications, to assist at surgery, and/or to answer questions by nurses, residents, general practitioners, and family members when the oncologist is unavailable.

The book holds a significant amount of detailed information, all of which may not be of particular interest to every reader, but the material is so well organized, presented, and illustrated that information of specific interest can be found easily. The book is highly recommended.

Jerome Abrams, M.D.

1982 Year Book of Medicine

David E. Rogers, M.D., et al. Chicago, IL, Year Book Medical Publishers, 1982. Pp. 704

The 1982 Year Book of Medicine is a collection of abstracts of articles in fields of particular importance to internists. There are sections on infectious diseases, the chest, the GI tract, endocrinology, electrolyte and water metabolism, the heart, and blood.

The bulk of the articles are from familiar American journals but there are a fair number from European countries and New Zealand. The literature is reviewed up to August, 1981.

A new element in the text is the inclusion of a cumulative index going back to 1978.

The abstracts are relatively brief, approximately 400 words in length, and to the point. They are written matter-offactly without excessive verbiage. The chapter headings and the cumulative index are marked clearly.

The 1982 Year Book of Medicine should be of value to all internists and medically oriented general practitioners, especially those who do not wish to keep hundreds of journals on hand for reference.

Leo Lewin, M.D.

Review of Medical Microbiology

E. Jawetz, M.D., J.L. Melnick, Ph.D., E.A. Adelberg, Ph.D. Los Altos, CA, Lange Medical Publications, 1982. Pp. 553. (\$17)

In attempting to condense vast amounts of material into a single volume, review textbooks face two challenges. The first challenge is to include all information that will be of value to the intended reader; the second challenge is to avoid a cryptic and disjointed style. The 15th edition of the Review of Medical Microbiology meets both of these challenges successfully.

This Lange series review offers a comprehensive and well-balanced presentation of the basic science and of the clinical aspects of medical microbiology. There are 41 chapters dealing with bacteriology, virology, mycology, parasitology, immunology, and chemotherapy. The text serves students of introductory microbiology as well as experienced clinicians by including information on microbial classification and structure and progressing through clinical pictures and prophylaxis.

The text is reinforced with useful tables, diagrams, graphs, photographs, and electron micrographs. An extensive bibliography follows each chapter. This book is highly recommended for physicians who wish to bring themselves up to date on the latest in bacteriology and parasitology.

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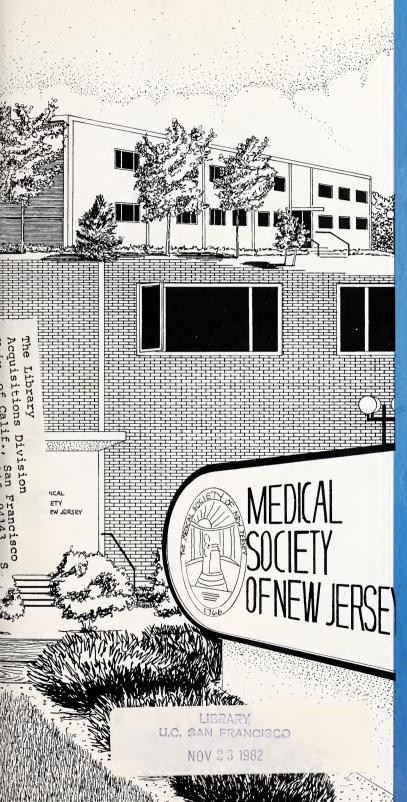
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CONTENTS

885 PROFESSIONAL LIABILITY COMMENTARY

EDITORIALS

- 889 Policy Statement: Physician-Administered Injections
- 889 Plastic Surgery and FIE: A Double Blow at Bias
- 890 The Medical Society of New Jersey and You
- 891 Society for the Relief of Families of Physicians

ARTICLES

- 895 DRGs and Medical Practice: Meeting the Challenge of Incentive Reimbursement Russell P. Caterinicchio, Ph.D., and Jeffrey A. Warren, M.P.A., Trenton
- 903 New Jersey's Fifth Pathway: The Returns for the Effort Gordon N. French, M.D., and Joan R. Semen, Piscataway
- 909 Prolonged Total Parenteral Nutrition Using the Broviac Catheter Irwin H. Krasna, M.D., and Shmuel C. Shapira, M.D., Piscataway
- 915 Elevated Serum Acid Phosphatase in Chronic Myelomonocytic Leukemia A.B. Stefaniwsky, M.D., H.C. Kim, M.D., Y.M. Cho, M.S., P. Saidi, M.D., Piscataway

STATE OF THE ART

919 Hepatic Encephalopathy
Steven Davidoff, M.D., and Warren Werbitt, M.D., Cherry Hill

CASE DEDODT

925 Staphylococcal Toxic Shock Syndrome Following Herniorrhaphy in a Male B.D. Fisher, M.D., N.A. Britman, M.D., R.H. Null, M.D., Plainfield

CLINICAL NOTE

929 Deviation from Standard Care—Subacute Endocarditis Leon G. Smith, M.D., Newark

PEDIATRIC BRIEFS

931 Selected Abstracts with Comments

933 OWNERSHIP STATEMENT

DOCTOR'S NOTEBOOK

- 934 Trustees' Minutes: September 12, 1982
- 935 Current State Legislation
- 938 UMDNJ Notes, Stanley S. Bergen, Jr., M.D.
- 938 MSNJ Auxiliary, Linda B. Hirsch
- 939 New Members
- 939 Physicians Seeking Location in New Jersey

943 MEDICAL PHILATELY Joseph H. Kler, M.D.

- 945 LETTERS TO THE EDITOR
- 949 CME CALENDAR
- 955 **OBITUARIES**
- 956 **BOOK REVIEWS**



On The Cover: What do you get out of membership in the Medical Society of New Jersey? As with so many rhetorical questions, we will provide the answers. In brief—a lot. The editorial, beginning on page 890, should make it quite clear that there are overt and hidden benefits that far outweigh the dues. The cover illustration is by Claudia Wainwright.

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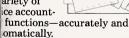
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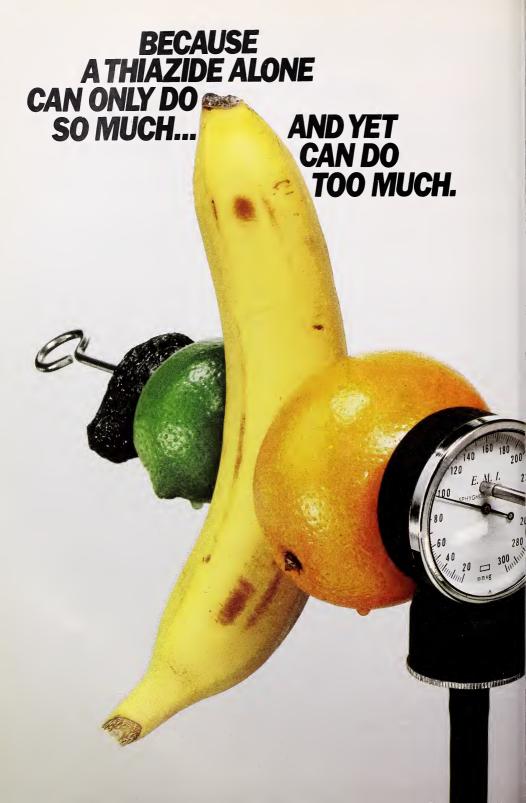
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Hydrochlorothiazide: Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

persensitivity to this or other sulfonamide-derived drugs.

WARNINGS: Propranolof hydrochloride (INDEPAL*): CARDIAC FAILURE: Sympathetic stimulation is a vital component supporting circulatory function in congestive heart failure, and inhibition with beta blockade always carries the potential hazard of further depressing myocardial contractifity and precipitating cardiac failure. Propranolol acts selectively without abolishing the infortiopic action of digitals are so in the heart muscle (e). In that of supporting the strength of myocardial contractions). In patients already receiving digitals, the positive inortopic action of digitals may be reduced by propranolols negative mortopic effect. The effects of propranolol and digitals are additive in depressing AV conduction.

In PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE. continued depression of the myocardium over a period of time can, in some cases, lead to cardiac failure. In rare instances the bas been dissequed during norganolist branch. Therefore at the first som or

stances, this has been observed during propranolol therapy. Therefore, at the first sign or symptom of impending cardiact failure, patients should be fully digitalized and/or given a duretic, and the response observed closely, a) if cardiac failure continues, despite adeudiente, and uniteration and substance of the control to the contr

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of argina and, in some cases, myocardial infarction, following about discontinuation of prograndol therapy Therefore, when discontinuance of prograndol is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when prograndol is prescribed for angina pectors, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If prograndol therapy is interrupted and exacerbation of angina occurs, it usually is advised to remainful curstade in display the pectors. Since colorary after y disease may be unrecognised to the colorary after y disease may be unrecognised to the prograndol than of the

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long-term use have not been adequately appraised. Special consideration should be given to program-lofs potential for aggravating congestive heart failure. Propranolol may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false im-pression of improvement. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. This is another reason for withdrawing propranolol slowly. Propranolol does not distort thyroid function

tests IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranoiol, the tachycardia was replaced by a severe bradycar-dia requiring a demand pacemaker in one case this resulted after an initial dose of 5 miles.

proprainolo
In PATIENTS UNDERGOING MAJOR SURGERY, beta blockade impairs the ability of the heart to respond to reflex stimuli. For this reason, with the exception of pheochromocy toma, propranolol should be withdrawn 48 hours prior to surgery at which time all chemical and physiologic effects are gone according to available evidence. However, in case of emergency surgery since propranolol is a competitive inhibitor of beta-receptor agonists, its effects can be reversed by administration of such agents, e.g., isoproterenol or levar-ternol. However, such patients may be subject to profracted severe hypotension Difficulty in restaiting and maintaining the heart beat has also been reported. CHRONIC BRON. CHRONIC BRON. CHRONIC BRON. CHRONIC BRONICHITS, EMPTYSEMA), propried also filed permitted with caution sincert may block bronicheditation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

block of total coloration produced by enlogenous and exogenous calectionamine similar-tion of beta receptors.

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Because of its beta-adrenergic blocking activity, proprianold may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia. This is espe-cially important to keep in mind in patients with liabile diabetes 'Hypoglycemia thatsch may be accompanied by a precipious elevation of blood pressure Hydrochlorothiazude: This zides should be used with caution in severe renal disease. In

patients with renal disease, this acides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop. This acides may should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate benafts commission.

progressive liver disease, since finition altertations of future and electrolyte qualities may pre-cipitate hepatic coma. This acides may add to or potentiate the action of other antihypertensive drugs. Potentia-tion occurs with ganglionic or peripheral adrenergic blocking drugs. Sensitivity reactions may occur in patients with a history of allergy or bronchial ashma. The possibility of exacerbation or activation of systemic luppus erythematosus has been

reported

WES IN PREGNANCY: Propranoiol hydrochloride (INDERAL®): The safe use of propranoiol in human pregnancy has not been established. Use of any drug in pregnancy or
women of childbearing potential requires that the possible risk to mother and/or fetus be
weighed against the expected therapeutic benefit. Embryotoxic effects have been seen in

animal studies at doses about 10 times the maximum recommended human dose. Hydrochlorothiazide: Thiazides cross the placential barrier and appear in cord blood. The use of thiazides in pregnant women requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. Nursing Mothers. Thiazides appear in breast milk. If the use of the drug is deemed es-sential, the patient should story pursing.

sential, the patient should stop nursing PRECAUTIONS: Propranofol hydrochloride (INDERAL*); Patients receiving catechol-amine-depleting drugs such as reserpine should be closely observed if propranofol is ad-ministered. The added catecholamine blocking action of this drug may then produce an excessive reduction of the resting sympathetic nervous activity. Occasionally, the pharma-cologic activity of progranofol may produce by propension and/or marked bradypardia re-sulting in vertigo, syncopal attacks, or orthostatic hypotension.

As with any user drug nearest school does not be active to proper propriet and progress the progress of the pro

As with any new drug given over prolonged periods, laboratory parameters should be observed at regular intervals. The drug should be used with caution in patients with im-paired freat or hepatic function. Hydrochlorothiazide: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or cleartifying metabance among thiazide therapy should be observed for clinical signs of fluid or cleartifying metabance among the proper group beneathers in which are applications.

an ipanens receiving initiative repays risuluo to de ubserveto rd cinical signs of initio relectrolyte imbalance, namely, hyponatremia, hypochloremia akaiosis, and hypokalemia Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause are dyness of mouth, thirst, weakness, lethargy, drowniess, resitessness, muscle pains or cramps, muscular factors.

tinist, reasonable of the control of

Introduction and the second of the sec

tion
Thiazide drugs may increase the responsiveness to tubocurarine

The antihypertensive effects of the drug may be enhanced in the postsympathectomy patient. This zides may decrease arterial responsiveness to no repinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for inerapeutic use. If progressive renal impairment becomes evident, consider withholding or discontinuing

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.
Thazi'des may decrease serum PBI levels without signs of thyroid disturbance.
Calcium excretion is decreased by thisazides Pathologic changes in the parathyroid gland with hypercalcerma and hypophosphatemia have been observed in a few patients on prolonged thazide therapy. The common complications of hyperparathyroidsm such a renal thisases, bone resorption, and peptic ulceration, have not been seen. Thisazides renally thisases, bone resorption, and peptic ulceration, have not been seen. Thisazides renally failure the should be discontinued before carrying out tests for parathyroid function.

ADVERSE REACTIONS: Propranolol hydrochloride (NDERAL): Cardiovascular badycards, a congestive heart failure, intensification of AV block. hypotension, patesthesia of Certral Nervous System lightheadedness mental depression progressing to catatoria, visual disturbances, hallucinations, an acute reversible entental depression progressing to catatoria, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short term memory loss, emotional lability, sightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrontestral nauses, vomiting, epigastric distress, abdominal cramping, diarrhea,

and decreased performance on neuropsychometrics. Gastrontestrain rausea, vomling, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic collis. Allergic, pharynglis and agranulocytosis, erythematous rash, fever combined with ach-ing and sore throat, laryngospasm and respiratory distress. Respiratory bronchospasm. Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpur Miscellianeous reversible alopeica. Octolomucocutareous reactions involving the skin,

Miscellaneous reversible alopecia. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practicol) have not been conclusively associated with propranolol. Chinical Laboratory Test Indings: Elevated blood urea levels in patients with severe hear disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase. Hydrochlorothiazide: Gastrointestinal anorexia, gastric mitation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancrea-titis, staladentis. Central Nervous System dizziness, vertigo, paresthesias, headache, xanthopsia. Hematologic leukopenia, agranulocytosis, thormbocytopenia, aplastic anemia Cardiovascular: orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics)

Hypersensitivity: purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis cutaneous vasculitis), fever, respiratory distress including pneumonitis, anaphylactic reacti Other, hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restless-ness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be re

whenever accesses reactions are moderated in severe, initiative obsages should be reduced or therapy withdrawn.

HOW SUPPLIED: — Each hexagonal-shaped, off-white, scored INDERIDE 40/25 tablet is embossed with an "I" and mprinted with "INDERIDE 40/25," contains 40 mg propriancial hydrochloride (INDERIAL*) and 25 mg hydrochlorothizazide, in bottles of 100 (INDE 0046-048-91) and 1,000 (INDE 0046-048-91). Also in unit dose package of 100 (INDE 0046-048-93) and 1,000 (INDE 0046-048-93).

(NDC 0046-0484-99).

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Rule 4:21, Medical Records, and Video Tapes

he Appellate Court has ruled that parties to a Rule 4:21 panel hearing have the right to have expert medical testimony. The decision of the Appellate Court resulted from a Rule 4:21 panel judge imposing a local rule prohibiting parties from using live testimony of medical experts.

The panel judge's rationalization for this prohibition was as follows:

"I have done it and I can only speak for myself although I can assume that maybe others have the same ideas. I have done it because if we were permitting the experts to come in and to testify, what basically we would be having is a practice session of the testimony of the experts on each side with . . . n effect the discovery proceeding again and what I perceive to be a rather lengthening of the time for the panels. So that I have in all instances stated that there will be no live testimony of the experts."

The Appellate Court offered the following as a basis for its

"Fairness to all parties in medical malpractice cases under R. 4:21-1 et seq. requires that at the pretrial conference the panel judge, with the assistance of counsel, seeks to shape the form the panel presentation shall take. There is no reason why the parties cannot testify and experts as well. The length of time involved in such presentation readily can be handled by the proper exercise of judicial discretion at the panel nearing. There then is no jury and the issues can be reached and covered with dispatch without prolonged direct and pross-examination of experts."

The Court directed "that the rule heretofore enforced to are expert testimony at panel hearings no longer be embloyed. The need for such expert testimony at panel hearings apparent and where the parties desire to have such estimony the right should not be denied.

"Our ruling in this case is to have only prospective effect and shall apply to cases not as yet submitted to panels. Where cases already have been considered in panel hearings he parties shall be deemed to have agreed to the procedure prohibiting live expert testimony."

GOOD MEDICAL RECORDS CAN MAKE A DIFFERENCE

The July, 1982, publication of the New Jersey Jury Verdict Review and Analysis reported two unrelated professional iability cases heard in New Jersey's Superior Court. In one case the jury found for the plaintiff in the amount of \$200,000, while the other case was found in favor of the defendant physician. However, in both instances patient medical records played an integral part in the jury decision.

In the first incident the plaintiff alleged that as a result of negligence of the defendant anesthesiologist in the administering of a local anesthetic, she suffered cardiac arrest that resulted in cerebral anoxia. The plaintiff contended that the physician administered the anesthetic into the vein rather than the epidural space resulting in damage to the tissue surrounding the eye and permanent blind spots in her central vision.

The plaintiff's expert opined that the defendant did not take proper precautions of either injecting a small amount of the anesthetic to determine if there was a reaction in the patient, which would result from intravenous administration, or aspirating the needle to insure that no blood was present.

The defendant contended that he did follow proper procedures and his expert opined that inadvertent intravenous administration can occur if all proper precautions are made. However, the medical records contained no mention of any precautions taken.

The jury found for the plaintiff and awarded her \$170,000 and \$30,000 to her husband on the per quod claim. The failure to mention any precautions taken in the administration of the anesthetic aided in the jury's contention of a deviation rather than an expected complication.

In the second incident the plaintiff alleged that the defendant cardiologist negligently performed an arteriogram resulting in a blood clot. The plaintiff contended that had she known of the risk she would not have undergone the procedure since she had previously suffered from an embolism.

The plaintiff's expert opined that the clot developed because the defendant exerted too much pressure on the catheter resulting in trauma to the artery. The defendant's expert opined that the clotting was a normal risk of this procedure.

The defendant maintained that he did inform the plaintiff of the risks and produced medical records and a signed consent form to substantiate his testimony.

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department and Director of Special Projects.

Mention in the medical records of informing the patient of risks of the procedure and the signed informed consent greatly aided the jury finding in favor of the defendant physician.

NEWSPAPER WINS SUIT TO ATTEND HOSPITAL MEETING ON MD PRIVILEGES

A county hospital's credentials committee meeting to determine whether a physician's staff privileges should be continued was required to be public, the Arkansas Supreme Court ruled. A newspaper filed actions under the Freedom of Information Act after a reporter was denied admittance to the meeting. The court found that where the physician was not a public officer or an employee of the hospital but an individual who had privileges extended by the public-owned hospital, the Act required that the hearing of testimony and a vote on the matter must be in public session. The court found that resolution of the issue by the committee members might be conducted in executive session. The Citation, Vol. 45, No. 6, July 1, 1981

NECK AND SPINAL INJURIES VIDEO TAPE

James E. George, M.D., J.D., Director of the Department of Professional Liability Control, and Henry R. Liss, M.D., neurosurgeon and Clinical Associate Professor of Neurosurgery at the University of Medicine and Dentistry of New Jersey, recently completed a video tape entitled, "Neurosurgery and the Law."

The 35-minute video tape utilizes a talk show format and concerns itself with the prevention of malpractice that can arise in the treatment of neck and spinal injuries,

Drs. Liss and George discuss the treatment of these injuries and the potential for malpractice in relation to the emergency department physician to physician and physician to staff communication, multiple physician consultants, the general problem of professional liability, and the three "Rs" of malpractice prevention.

Since January, 1981, the Department of Professiona Liability Control has been involved in the production and rental of a series of video tapes designed to provide information to physicians within specific medical specialties regarding the prevention of professional liability.

The video tapes have been used widely by individual physicians, hospitals, and medical groups throughout New Jersey. In February, 1981, the Medical Society of New Jersey received a Silver Award in Category VI of the AMA 1980 National Awards Program for Medical Speakers for its presentation of the video tape, "Professional Liability and the Anesthesiologist."

Response to the video tapes has prompted the Department to expand its rental library by providing the tapes in Beta and VHS as well as the \%-inch tape.

Physicians desiring to avail themselves of this service can contact the Department of Professional Liability Control at the Medical Society of New Jersey, Lawrenceville (see below).

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Neurosurgery and the Law

The Department of Professional Liability Control of the Medical Society of New Jersey has developed *professional liability video tapes aimed at specific medical specialities*. The video tappes incorporate a "talk show" format featuring James E. George, a physician-attorney, and physician(s) representing the medical specialty subject of the tape. Each of the 45-55 minute video tapes is designed to encourage postviewing discussion and is available for a \$45.00 rental fee. All tapes are available in ¾ inch, Beta, and VHS.

TOPICS INCLUDE

- General assessments of professional liability
- Informed consent
- · Multiple-physician consultants
- Medical records

- Physician to physician and physician to staff communications
- Group practice
- · Emergency room setting
- Three "R's" of malpractice prevention

Category I AMA accreditation can be obtained if the video tapes are used as part of a planned program in conjunction with a moderator.

For more information please contact the Department of Professional Liability Control at the Medical Society of New Jersey, (609) 896-1766.

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Policy Statement: Physician-Administered Injections

American physicians, from the beginnings of this republic, have participated freely and enthusiastically in the wars this nation has endured, exercising, as required, their healing skills on both friend and foe. They never have been asked to take life during these conflicts, nor has it been deemed proper to ask this of them, recognizing that one of the enduring and basic ethical principles of the physician has been to conserve and preserve life in a cognitive, sapient, and vital human being.

The recent enactment of a death penalty statute in New Jersey and the suggestion that execution be by injection, of necessity, have caused the Medical Society of New Jersey to reexamine these principles. Agreement or disagreement with the imposition of a death penalty and agreement or disagreement with the method of execution and its "humane" qualities are not germane to the central issue, i.e. whether a physician ethically may take human life by active participation in a legally ordered execution.

We think not, feeling that acceptance of such participation would undermine the moral and ethical foundations of medicine.

Accordingly, the Board of Trustees of the Medical Society of New Jersey reaffirms the ethical necessity for the physician to practice only the positive aspects of the healing arts and to respect the sanctity of human life, and further reaffirms the policy statement of the American Medical Association, which states that a "physician, as a member of a profession dedicated to preserving life when there is hope of doing so, should not be a participant in a legally authorized execution."

The role of the physician in pronouncing or determining the cause of death after an execution would not be affected and would continue to be acceptable.

Howard D. Slobodien, M.D. President

Plastic Surgery and FIE: A Double Blow at Bias

One cannot tell a book by its cover but external appearances can and do provide encouragement to both latent and overt bias among all of us. The pigmented races can attest to that.

Down's syndrome or trisomy 21, a common genetic lisorder (1 in 700 births), has been called mongolism alhough its only asianoid feature is the appearance of the eyes. The characteristic appearance of the child with Down's yndrome easily is recognized.1 The orbits are smaller than formal; there is an epicanthal fold and the lateral portion of he eyes slope in an upward direction. The tongue is large, vhich causes it to protrude from the mouth through a lax ower lip. The auricles are small, deformed by cartilaginous nalformations and may protrude away from the head. A hort nose, flattened nasal bridge, receding chin, and broad hort neck with hypotonic skin distinguish the picture. Neuromuscular aberrations include poor muscle tone (babies re floppy) and hands and feet that are broad and squared iff and have hypermobility of the joints. The fifth finger is horter and tends to curve inward while the space between he first and second fingers and the first and second toes is vide. The majority have the so-called "simian line," i.e. a ingle crease across the palm instead of the two horizontal reases normally present. The abdomen appears protuberant nd often harbors an umbilical hernia. A large proportion (30 to 50 percent) have congenital heart abnormalities and almost half have hearing defects.

The diagnosis of Down's syndrome can be confirmed by chromosomal analysis which reveals an extra chromosome on the chromosome 22 pair which, by convention, has been called trisomy 21 (although it actually is trisomy 22). The Down's syndrome child thus has a total of 47 chromosomes rather than the normal 46 (23 pairs) in the great majority of cases (96 percent). In about 4 percent of cases, the chromosomal abnormality is called "translocation," a condition in which a piece of the chromosome breaks off and attaches to the chromosome 21 pair. In translocation Down's syndrome, the total number of chromosomes is normal, i.e. 46, but the clinical stigmata are the same.

Mental retardation to varying degrees always is present and this results in developmental delay—in all spheres: physical, emotional, and intellectual. But, physicians should realize that all children with Down's syndrome do not have severe retardation and some are capable of achieving relatively remarkable advances. The development of language skills and motor performance coupled with special training and education have permitted the majority of well-handled children to make useful contributions in the home or in a sheltered working environment.

A decade of studies, observations, and intervention by a

remarkable Israeli educational psychologist, Dr. Reuven Feuerstein, have led him to remove the "hopeless" label from children with Down's syndrome.^{2,3} Through intensive training, Feuerstein has shown that many Down's syndrome youngsters can progress to relatively high levels of function. A unique concept called Instrumental Enrichment (IE) enables Feuerstein to develop an intervention strategy which its proponents claim invigorates and motivates the latent mental functions of the low-performing individual through "cognitive modification." Feuerstein is a rebel who rarely uses the word "retarded" and who has grave doubts about the standard IQ tests.⁴ His studies have shown that the "normal" IQ test measures what a subject already knows, while his testing procedures seek to determine what the subject can learn, i.e. where cognitive deficiencies lie.

Feuerstein claims that children with Down's syndrome in increasing numbers have learned "to read, write, and function at nearly normal levels;" however, their physical appearance labels them as "retarded."²

For the past five years, German plastic surgeons and more recently through the influence of Feuerstein, a few Israeli and American plastic surgeons have been operating on Down's syndrome patients. The German surgeons, Gottfried Lemperle and Dorin Radu, have operated on more than 250 Down's victims ranging in age from 3 to 24 years.

The surgery consists, to variable degrees, of reduction of tongue size, otoplasty, elevation of lax lower lip, modification of the eyelids, uplifting the nasal bridge, and implants in the malar eminences and chin.

To Feuerstein, the plastic surgery permits us to evaluate the Down's patient as an individual rather than as a member of a strange and inferior group. Although all the physical defects are not eliminated, the patient has secondary gain in motivation and personality.

Frances Link, Vice-President of Curriculum Development Associates, Inc.* is the leading proponent of the Feuerstein Instrumental Enrichment (FIE) method in the United States. Link says that FIE is being used by colleges, school districts, the United States Army, and by corporations in pedagogic programs aimed at introducing the techniques to teachers. Both Feuerstein and Link refer to "retarded performers," a group which includes the gifted as well as the Down's victim. They believe that their work "demolishes the pessimistic view that a mind's ultimate capacity may be predestined by such immutable factors as genetics, race, culture, geography, or socioeconomic status." 5

At the recent World Congress on Mental Retardation in Toronto, Canada, results of plastic surgery done in Israel in February, 1982, on ten persons with Down's syndrome were reported. The surgery, which is short and relatively painless, is associated with intensive social and cognitive assessment before and after surgery. Speech therapy after partial glossectomy is essential.

Although parents believe that society should be educated to accept children with Down's syndrome as they are, the likelihood of such an acceptance is enhanced through the media of plastic surgery, Instrumental Enrichment, and a full program of education and habilitation.

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*Washington, DC.

The Medical Society of New Jersey and You

What do you get out of membership in the Medical Society of New Jersey? As with so many rhetorical questions, we will provide the answers. In brief—a lot! The following material should make it quite clear that there are overt and hidden benefits that far outweigh the dues.

You receive:

- opportunities to enroll in insurance programs such as group hospitalization, disability plans, major medical, and life insurance and the ability to participate in a wide variety of other plans through concurrent membership.
- a newsletter that advises you of Society actions and changes in laws or regulations affecting your practice.
- access to the members through the Society mailing and membership lists, that always are available to members, and access to the Society's mailing house, which provides comprehensive mailing services for the cost of postage plus a nominal handling fee.

- advance and sometimes exclusive notification of loca programs and seminars, from specialty groups conducting such meetings who use the Society's mailing list.
- assistance in dealing with many of the day-to-day problems of medical practice.
- help with specific problems or crises, such as th gasoline shortage during the summer of 1979.

You Communicate:

- with the Society's Board of Trustees whose members ar elected by you and always are available to listen to you suggestions and to explain Board policy to you.
- with specialty liaison committees, representing eac medical and surgical specialty, who give special attention t the concerns of each specialty.
- with the Medical Society of New Jersey through mem bership in that Society and through your elected represent atives to its House of Delegates.
 - with the American Medical Association through you

elected state representatives to its House of Delegates and through staff contacts.

You Participate:

- in membership meetings that provide a forum for peer socializing outside the office/hospital setting, and allow you to take individual concerns directly to the membership.
- in the collective voice of the Society, which, as the recognized statement maker of the medical community, represents your point of view most effectively through your direct participation.
- in educational programs, such as CME, CPR courses, and seminars in office management and staff planning, many of which are cosponsored by MSNJ and the AMA and many of which are available to members at reduced fees.
- in legislation and government liaison—the Medical Society is the physicians' voice in state government. The Medical Society's strong, united front insures that you are represented and that the profession's viewpoint firmly is registered at various levels of governmental activity.

Your professional community benefits:

- by a central staff office that is aware of current developments and can provide you with answers to questions of ethics and regulations governing medical practice in the state.
- in legislative matters through the Council on Legislation and through registered lobbyists on the state level, who represent your voice to the legislators and who keep you, the members, aware of current and proposed legislative activity.
- by representation by physicians and staff at local, state, and national meetings.
- through Society liaison with the Health Department and Hospital Association which makes sure your voice is heard.
- from health planning activities, that include reviewing and commenting on all proposed health plans, to ensure that needed quality care is available and accessible.
- by peer review—MSNJ provides a peer review mechanism, through the Judicial Council. Our committees also attempt to mediate problems in physician-patient relationships that are brought to their attention by members of the public.

- by Medicaid Assistance—Society members, through MSNJ, can receive assistance in problems which arise with Medicare, Medicaid, Blue Shield, and commercial insurers.
- from the Impaired Physicians Program, a special program to assist and rehabilitate the impaired physician.
- from Society public relations—the Council on Public Relations is committed to present a correct image of physicians and their vital services to the public. In addition, we have developed programs to present and explain matters affecting the medical field and to clarify and/or rebut misinformation on health care delivery on city, county, state, and national levels.
- from *The Journal* of the Medical Society of New Jersey which will keep you informed on scientific, economic, political, legal, and social developments in the field of medicine.

Your professional community grows:

- through the Judicial Council and Judicial Committees which ensure an ongoing awareness of the practice standards of this community, promote a high level of quality care, and review grievances in an attempt to explain the complexities of medical practice to the community and adjudicate disputes.
- through activities and contacts with the community which are planned and implemented by the Public Relations Council.
- through association with the business community through membership in the Chamber of Commerce.
- through liaison with the New Jersey Bar Association at a time when mutual cooperation between physicians and lawyers is crucial.
- through various standing committees which are charged with reviewing aspects concerning all phases of medical practice.

There are pockets of New Jersey physicians who do not belong to MSNJ, who should make a positive decision to join. One particular group is the faculty of the University of Medicine and Dentistry of New Jersey, whose input in organized medicine would benefit them and MSNJ.

Do a medical colleague a favor and urge him/her to join MSNJ now. A.K.

Society For the Relief of Families of Physicians

Did you ever wonder what might happen if you died or became disabled and you and/or your surviving family members had financial problems? Although physicians are preplanners, we are not the greatest fiscal managers, so problems can and do arise.

SRFPNJ is a nonprofit, helping-hand organization that was organized 100 years ago by New Jersey physicians for the benefit of the families of deceased members.

The details of the organization follow:

OBJECTIVES OF THE SOCIETY

The Society was founded in 1882 to provide immediate financial assistance to those who have been dependent upon

a deceased member, to assist a member disabled by illness or misfortune by lending money without collateral or interest, and to assist families of deceased members who may experience adversity.

BENEFITS

The Society does not pay a fixed sum upon the death of a member. The amount varies slightly depending upon the number of members on the rolls in good standing at the time an assessment is called.

The bylaws of the Society provide that the dependent of a member shall receive at least 80 percent of every dollar paid in by the members. The remaining 20 percent of an assessment is used to defray necessary Society expenses, such as printing, postage, bonds for officers, and clerical assistance for the Treasurer. The unexpended balance of this 20 percent is placed in the Permanent Fund to provide income which is used to aid families of deceased members who subsequently require assistance.

THE PERMANENT FUND

Since the Society was founded, the Trustees have saved the amounts received from initiation fees, donations, and the unexpended balance of the aforementioned 20 percent. These funds are invested in securities to which the Trustees are restricted by state laws. These invested savings constitute the Permanent Fund. The Fund remains in a satisfactory state and produces a good yield. No portion of the Permanent Fund may be spent for any purpose whatsoever. The income from the Permanent Fund is used to provide assistance to needy widows, orphans of deceased members, and members in need. Such assistance is in addition to the regular death benefit and, depending on need, may be provided for many years after the death of the member.

PAYMENT OF BENEFITS

Upon proof of death, a check for approximately 90 percent of the calculated death benefit is sent to the spouse. The remainder of the benefit is sent within four months. If no spouse survives, the payment is made to the children of the deceased. If there are no heirs, payment is made to the estate (taxable) or as directed. Often payment has been returned to the Permanent Fund as a charitable donation.

ANNUAL COST PER MEMBER

With our present membership, we lose by death 16 to 20 members each year.

Assessments per death are as follows:

For a member joining the society after June 1, 1981; before age 50: \$3.00; and between 50 and 65: \$6.00.

The Society does not accept applicants over 65 years of age.

The amount of assessment is determined solely by the age at the time of becoming a member.

In the history of the Society there has been only one increase in the amount of the assessment for death. Therefore, it is anticipated that the current assessment will remain stable for a considerable period of time.

The Treasurer notifies the entire membership of the deaths, together with a statement of the member's indebtedness to the Society at that time.

SALARIES AND COMMISSIONS

There are no salaried positions in this Society. The Treasurer is allowed a modest sum for clerical assistance. No one is paid commissions of any kind. The Officers, Board of Trustees, and Committee members give their time and service without compensation. Although a recipient of the support of The Medical Society of New Jersey and the Auxiliary, the Society is an independent, nonprofit, charitable organization administered by physicians.

REASONS FOR JOINING THE SOCIETY

This Society can best be described as a "helping-hand organization." It provides a sum to help carry the deceased member's family over a difficult time when ready money is not alway available.

Society for the Relief of the Families of Physicians of New Jersey Application for Membership

Application	for Membership
Name	
Address	
Graduate of	Year
	County Medical Society
Date of Birth	
and of the Medical Society of ordinary good health, and in state of New Jersey. I am	member of the medical profession of New Jersey, in good standing, in actual practice of medicine in the assessmen utlined in its official brochure.
Signature of applicant	
acquainted with the above	ers of SRFPNJ, being personally applicant, do hereby testify that since in good standing and in the since in good standing and in the since in good standing and in the since
Date	
	M.D
	M.D
 Make checks payable to: SRF Princess Road, Lawrenceville,	PNJ, Neil Dello Russo, M.D., Two NJ 08648.

Every physician in good standing in the state of Nev Jersey is eligible to membership. At a small cost he can help provide aid to a professional brother in distress, or to hi family; and when a member dies, it is comforting to the physician to know he has helped provide financial assistance to the bereaved, and occasionally a very needy family. Some members, and beneficiaries, have transferred their benefits to the Permanent Fund to further aid those unfortunate one and are thereafter carried on our rolls as "benefactors."

HOW TO JOIN THE SOCIETY

The Board of Trustees welcomes new members. No medical examination is required. The application blank require only the name of the applicant, age, address, date of graduation, and the medical school attended.

This application must be signed by two members of thi Society, who will testify that the applicant is in ordinary good health.

The completed application is sent to the Treasurer with a check for the initiation fee according to the following schedule: if under 50 years: \$3.00; between 50 and 55 years \$4.00; between 55 and 60 years: \$5.00; and between 60 to 65 \$7.00

After a member is elected, a change of residence, retire ment, or military or government service does not affec membership. Once a member, always a member, provided assessments are paid. In unusual circumstances assessments may even be waived under certain provisions of the bylaws

All physicians are urged to join this self-help organization

A.K

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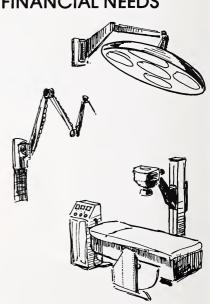


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DRGs and Medical Practice: Meeting the Challenge of Incentive Reimbursement*

RUSSELL P. CATERINICCHIO, Ph.D., and JEFFREY A. WARREN, M.P.A., Trenton**

As developed and applied in New Jersey, DRGs are a financial and medical innovation that have the potential for providing the nation with a model system which promotes quality care, equity among payers, financial integrity, and regulatory flexibility.

he escalating cost of health and hospital services is perennial parlor talk among involved industry analysts and government bureaucrats. That the costs associated with the provision of hospital care far have outstripped the rate of inflation and even fueled the inflationary spiral is an uncontested proposition. The concerned consumer or interested provider does not have to look very far for the startling facts: the average yearly per capita cost for medical care approximates \$750; the costs of critical and intensive care easily can exceed \$1,000 per day; and on an even grander scale, the costs of subsidizing the Medicare program are approaching \$41 billion for the 1983 fiscal year. In addition, the health and hospital industry is the third largest industry in the United States, accounting for almost 9 percent of the gross national product.

While everyone agrees that somebody must do something to control these rising costs, there is considerable controversy regarding who that somebody should be. Federal and state policymakers wrestle with the industry and professional interest groups to enact legislation that will put limits or caps on programs and spending. The industry and the medical profession cite unwarranted interference with free enterprise and express fears that such legislation may represent a serious intrusion into medical practice. All the while, of course, the consumer must endure the hardships of runaway costs, constantly bending under the weight of rising taxes and insurance premiums.

The payment by the case system, "Diagnosis Related Group (DRG) hospital reimbursement," developed by the New Jersey State Department of Health reflects many of these larger national issues. However, an understanding of the current rate-setting scenario in New Jersey requires some appreciation of the history and evolution of hospital reimbursement policy in New Jersey, and the central role of the physician in both the creation and implementation of casemix-based reimbursement.

AN OVERVIEW OF THE EVOLUTION OF HOSPITAL RATE SETTING IN NEW JERSEY

New Jersey has a long tradition of legislation geared to the regulation of hospital costs in the best interests of the public. Since 1938, the state legislature has enacted various laws requiring the regulation of payment rates to assure the reasonableness and adequacy of hospital charges to such major carriers as Blue Cross. However, as costs began to spiral during the early 1960s, the Commissioner of Banking and Insurance responded by establishing maximum per diem

^{*}The material contained in this article represents the views and opinions of the authors and neither endorsement by the New Jersey Hospital Rate-Setting Commission nor Humanamethods, Inc. is intended or should be inferred.

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rates for hospitals throughout the state. This "fixed ceiling" approach really was nothing more than a function of what the majority of the hospitals arbitrarily decided to charge.

A 1967 industry analysis conducted by a state commission to study Blue Cross in New Jersey indicated that the nearly 10 percent per year jumps in hospital costs and premiums did not reflect volume increases or improved services. There was mounting evidence that the ability of the industry to exercise internal constraints was not being supported by experience. Nevertheless, by 1968, the New Jersey Hospital Association had lobbied successfully for the establishment of an Advisory Committee to the Commissioner of Banking and Insurance. This advisory group did not include any membership from state government or the consumer. By the end of its first full year of operation, the Advisory Committee had recommended hardship rate adjustments for hospitals retroactive to 1963 and had reviewed prospective budgets for 20 hospitals. Costs continued to skyrocket; by the end of 1969, Blue Cross petitioned the Commissioner of Banking and Insurance for a 73 percent increase in its premiums.

The turning point in the history of hospital rate setting in New Jersey came with the occurrence of two events: the publication of the Wharton Report in 1969 and the enactment of the Health Facilities Planning Act and its Health Care Administration Board in 1971. The Wharton Report's recommendations that full prospective rate setting, more direct public and consumer input to policymaking, and, most significantly, the use of per case reimbursement methods as an alternative to the per diem approach, challenged the status quo of rate setting and stimulated the policymakers toward what was to become case-mix-based reimbursement. The Health Facilities Planning Act gave the Commissioner of Health sweeping powers to protect the consumer from unreasonable hospital charges and questionable hospital accounting practices. The Commissioner of Health was empowered to review and approve hospital charges to Medicaid recipients, and, together with the Commissioner of Insurance, to regulate charges to Blue Cross of New Jersey through a uniform system of reporting and financial elements.

The subsequent implementation of a system of uniform costs reporting and accounting through the Standard Hospital Accounting and Rate Evaluation (SHARE) method in 1975 represented a logical extension of the Health Facilities Planning Act. This method of hospital cost control is referred to as a "cost-based prospective reimbursement

"The patient day is a rather poor measure of output or production because it does not reflect variations in resource use due to such factors as admission status or severity of the medical problem, i.e. case-mix."

system." Institutions are matched according to a number of structural characteristics such as number of beds, teaching status, and geographical area. A reasonable per diem cost is calculated (the 50th percentile or median cost) for hospitals matched into peer groups, and each institution's per diem

cost is screened and reviewed against the standard. Adjust ments are made for regional salary differences and inflation If a hospital's per diem cost exceeds the "reasonablenes screen" (10 percent above the median per diem cost), then a loss usually is incurred for that portion of the per diem in excess of the screen. Institutions can challenge and appea their rates based upon "uniqueness arguments." (An admin istrator might argue that his per diem costs are highe because his hospital is different from any other hospital regardless of the similarities imposed by membership in th peer group.)

SHARE was criticized by the industry as capricious an arbitrary. Some industry analysts contended that the syster not only was insensitive to legitimate uniqueness arguments but that it neither provided incentives for cost control no information for more efficient and effective management c resources.

DRG AS A PATIENT-CENTERED MODEL OF HOSPITAL SERVICES AND COSTS

While some may argue about the real value of SHARE a an effective hospital cost-control approach, it did indee seem to suffer the same old ills of all conventional cost-base systems that rely on the patient day as the measure of a institution's output or production. Simply stated, the patier day is a rather poor measure of output or production becaus it does not reflect variations in resource use due to suc factors as admission status or severity of the medical prob lem, i.e. case-mix. Another way of challenging the integrit of the patient day as a means of costing patient care service is to argue that physicians do not provide professions services to patient days; they, in fact, practice their medicin on patients. Hence, if a value is going to be placed on wha physicians do, then the costs associated with medical ir terventions should be linked to patients and not 24-hou periods of time.

Diagnosis Related Groups and case-mix rate setting ar alternatives to traditional per diem reimbursement system and represent a major step in enhancing the efficiency an competitiveness of the hospital industry. Developed at Yal University during the early 1970s, DRGs originally wer designed by operations research scientists and physicians a a means of conducting length of stay analysis for utilizatio review. Hence, from the very beginning DRGs have focuse on the case as the unit of hospital output with length of sta serving as a proxy measure of resource use intensity.

The step from the use of DRGs in utilization review t their application as a patient classification system for hosp tal rate setting has been a prodigious enterprise in Ney Jersey. The first generation of 383 DRGs was develope from hospital abstract data captured from the population c discharges from the first two quarters of 1976. The Deparment of Health obtained a considerable amount of mileag out of these DRGs, having used them to develop and refin the system for hospital reimbursement up to and includin the 1981 rate year.

DRGs really are nothing more than classes of patient displaying similar signs, symptoms, and lengths of stay. The represent output groups to which services and their cor responding costs may be apportioned to each and every cas given the variable nature of the case. In this respect, DRG serve as a patient-specific model for examining the relationship between costs and the intensity of services received In fact, DRG reimbursement is a logical regulatory extension

of the fee-for-service; and this fee structure hardly is new to physicians.

The technical aspect aside, DRGs also may be viewed as mediums by which professional communication and patient care can be promoted between peers and lay administration. As a computer-automated information system, DRG management reports permit hospital administration to exercise informed decision making; an institution's ability to provide services efficiently can be evaluated on a department-bydepartment basis across all cases for any given rate year. This capability can be expanded to include a dialogue with the medical staff so that patient care better can be coordinated for all routine and ancillary services. In fact, some innovative physicians from hospitals participating in DRG rate setting already have used DRG management reports in the conduct of morbidity and mortality conferences. This is why DRGs have been called the "common denominator" concerning the management of patient care and services by medicine and administration. Together, medicine and administration can work to assure that services are directed to those cases displaying the greatest complexity and severity. Thus, the DRG rate-setting system represents a financial and a medical innovation that has the potential to improve the provision of services to inpatients. Contrary to popular opinion, DRGs do not preempt the physician's role as a central decision maker. Rather, DRGs merely are a tool that can be exploited by medicine to enhance patient care and services.

DRGS AND PAYMENT BY THE CASE

However, DRGs are not a panacea; there have been problems encountered in making payment by the case. DRG payment is made by blending a hospital's average cost per case with the statewide average cost per case. The degree to which payment reflects the hospital's average is determined by how well defined the DRG is as a statistical group statewide. An average is only as good as the group from which it is computed is defined. Hence, if a DRG's state-wide average is computed from a group that is not homogenous by virtue of a wide dispersion around the average, then the state-wide average may be said to lack integrity. When a DRG state-wide average lacks integrity, then more of the hospital's actual average costs are used in making payment. In 1980, only about 20 percent of the state-wide average actually was used in making payment to hospitals on DRGs.

The Department of Health's DRG payment system earned some notoriety when the media exposed inequities to self-pay patients who were assigned to certain DRGs, but whose engths of stay were below the average. This so-called "low ength of stay trim" problem was exemplified by a patient whose treatment for a fractured finger cost \$5,000. Naturaly, the "\$5,000 finger DRG" caused quite a stir, and critics elt that such problems must just be the tip of a huge iceberg. However, the problem was identified as essentially a one-day tay phenomenon for patients who were assigned to medicaly heterogeneous DRGs. In the case of the "\$5,000 finger DRG," fractures of the finger were included under fractures of the hip requiring major repair; and with a patient's actual tay within the DRG length of stay trim points, the patient vould be billed the average DRG cost instead of the actual harges incurred for treating the broken finger during the ne-day stay.

The entire affair could be viewed negatively in respect to he Department of Health's DRG project, but it did preipitate changes in how the DRGs should be defined for payment (new trim points were established). It also demonstrated to the industry that the Department of Health could act responsively to the plight of consumers. Payment inequities were corrected on a patient-by-patient basis by DRG payment specialists.

Case-mix payment will be refined dramatically with the implementation of a new generation of 467 DRGs for the 1982 rate-setting year. The apparent inequities associated with the statistical instability and poor medical meaningfulness of the first generation of DRGs do not exist with the new set of DRGs. The 467 DRGs are far superior by virtue of their design and the scope of physician involvement in their development. In fact, the newly implemented DRGs

"Physicians do not provide professional services to patient days; they, in fact, practice their medicine on patients."

represent the latest step in the evolutionary refinement of case-mix reimbursement in New Jersey. All interested parties will be monitoring the performance of the 467 DRGs and the newly defined length of stay trim points.

THE HOSPITAL RATE-SETTING COMMISSION

DRGs are certainly the showcase of New Jersey's reimbursement system; however, there is much more to case-mix than meets the eye, and these extra ingredients help make the system truly responsive to the public and to changes in medical practice.

Through the enactment of Chapter 83, P.L. 1978, the New Jersey State Legislature created a five-member Hospital Rate-setting Commission, consisting of the State Commissioner of Health, the Commissioner of Insurance, two public members, and one industry representative. This largely independent quasi-adjudicative body was established in order to provide an open public forum for reviewing and approving rates of reimbursement for all hospitals and payers participating in the DRG reimbursement program. It is fair to say that the charge to the Commission, relative to its legislative and regulatory mandate, is broad and comprehensive. Specifically, the Commission has the authority to consider hospital-specific issues, as well as matters affecting the industry as a whole. Operating under a set of *Procedural* and Methodological Regulations, the Commission may choose to hear appeals, and through its adjudicative role, may decide issues in dispute between individual hospitals and the State Department of Health.

In addition, the Commission may review the necessity for providing hospitals with a working cash infusion, capital facilities formula allowance, and any other adjustments as deemed necessary and appropriate. Perhaps most importantly, the Commission is bound to a public policy that requires it to promote the financial solvency of hospitals that are utilized properly and which deliver efficient and effective, appropriate, and necessary health care services of a high quality. This bold mandate is to be accomplished within the context of the equally important public policy of hospital cost containment. The delicate balancing of these goals, which are not necessarily mutually exclusive, is truly at the heart of the Commission's responsibilities.

It is through the rate review process that the Commission molds and resolves both generic and hospital-specific questions regarding such issues as the need for a working cash infusion, operating costs for a Certificate of Need, or perhaps depreciation on a CAT scanner. Often, the debate generated by the discussion of these matters requires the Commission members to consider the impact on the health care delivery system as a whole, relative to cost, quality, access, and need.

One of the most significant aspects of the Commission's duties concerns the review and consideration of DRG appeals. Under Section V.D.2 of the *Procedural and Methodological Regulations:*

Any issue concerning differences in an institutional course of action or in patterns of medical practice, affecting a given Diagnosis Related Group or group of Diagnosis Related Groups, which is likely to significantly affect one or more institutions, shall be considered a Diagnosis Related Group appeal. An application to be so considered may be made by any party, including the Commission on its own motion; however, final determination with respect to the applicability of this subsection shall be made by the Commission. Following determination that an issue is to be treated as a DRG appeal, notice shall be made to all New Jersey acute care general hospitals, Professional Standards Review Organizations, the Medical Society of New Jersey, the Osteopathic Society of New Jersey, affected planning and licensing authorities, major third-party payers, and the Public Advocate which, at the direction of the Commission, shall be permitted to submit such evidence as may be appropriate.

Thus, a hospital or group of hospitals may petition the Commission for those costs above the standard, which may be the result of a new medical treatment modality, or the purchase of a new piece of equipment which represents an advance in medical technology, or the use of a new and costly miracle drug.

In such instances, the Commission must determine the appropriateness of the request, and also decide whether or not it should be treated generically or on a hospital-specific basis. During this process, the Commission would hear arguments by the hospital in support of the medical necessity of its appeal relative to quality of care. To verify the hospital's argument, the Commission hears comments from the state and local medical societies, health planning agencies, and other interested and affected parties. If the claims are substantiated, the Commission then may choose to adjust the hospital's rates to reflect its costs. In so doing, the Commission will be making a significant statement regarding the medical value of the matter in terms of the specific hospital. More importantly, the Commission's decision has the potential of affecting health care delivery across the state.

Another significant function of the Commission is its duty to assure that linkages exist between rate setting and planning. Such coordination is necessary if health care services are to be provided as efficiently as possible. In making its determinations, the Commission carefully must weigh the needs of the industry and the public, which may not always coincide. Given the fact that additional operating costs begin with capital investment, and also given the vast amounts of money involved in the delivery of health care services, the Commission's concern over such matters certainly should be understood. It is the intent of the Commission to promote

and assure, as best it can, that health care services are being allocated in the most cost-effective fashion possible.

CONCLUSION

The DRG prospective reimbursement system has considerable merit in spite of the controversy that has surrounded its implementation. Chapter 83, P.L. 1978 represents a workable marriage between regulatory bodies and free enterprise in the hospital industry. Yet, unless the financial and managerial personalities of the system are understood, especially by physicians and organized medicine, then the incentives associated with "payment by the illness" will not be exploited adequately on behalf of consumers.

Virtually everyone agrees that the physician remains at the very center of the DRG system; the hospital practitioner is the functional consumer of routine and ancillary services whose behavior ultimately will gauge the success of DRGs. By the same token, some physicians who do not appear to understand their specific roles regarding DRGs tend to view the system with great suspicion; and consider it an intrusion on their practice.

The implementation of DRG reimbursement neither binds the physician to a narrow range of practice nor destroys his/her decision-making role. Rather, DRG reimbursement makes physicians aware of the financial ramifications of their decision making. The profession cannot afford not to act. Physicians must work with the hospital administrators to direct their concerns to the Rate-setting Commission by means of the DRG appeal process, and thus, influence the evolution of DRGs in the best interests of their clients' health and the hospitals' financial needs. As developed and applied in New Jersey, DRGs are a financial and medical innovation that have the potential of providing the nation with a model system which promotes quality care, equity among payers, financial integrity, and regulatory flexibility.

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avoid simulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardioused cook of NFM MIDCA plots. Cardioused the patient of NFM MIDCA plots. The provided of the prostate provided the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. WARNINGS: If prajars mor other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use caudiously in young boys to avoid premature epiphyseal closure or precoroicus sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia, may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. ADVERSE

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WARNINGS

CARDIAC FAILURE. In congestive heart failure, inhibition with beta-blockade carries the potential hazard of further depressing myocardial contractility and precipitating cardiac

potential nazard or furner depressing myocardial contracting and precipitating cardiac failure. In patients already receiving digitalis, propranoloi may reduce the positive inortopic action of digitalis and may have an additive depressant effect on AV conduction. IN PATIENTS WITHOUT A HISTORY OF CARDIAC FALURE: in rare instances, cardiac failure has developed during propranoloi therapy. At the first sign of impending cardiac failure, patients should be fully digitalized and/or given a duriente, and observed closely. a) if cardiac failure continues, despite adequate digitalization and diuretic therapy, propranoiol should be immediately withdrawn; b) if fachyarrhythmia is being controlled, patients should be maintained on combined therapy and closely followed until threat of cardiac failure is over

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of INDERAL therapy Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when should be gradually reduced and the patient carefully monitored. In addition, when INDERAL is prescribed for angina pectoris, the patient should be callutioned against interruption or cessation of therapy without the physician's advice If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectors. Since coronary attery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease, who are given propranolol for other indications

IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long te have not been adequately appraised. Give special consideration for program use have not been adequately appraised. Give special consideration for programoiol's potential for aggravating congestive heart failure. Propranoiol may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Propranoiol's should be withdrawn slowly, since abrupt withdrawal story lowed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranoid does not district through such contents. In PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been

reported in which, after propranolol, the tachycardia was replaced by a severe brady cardia requiring a demand pacemaker. In one case this resulted after an initial dose of

5 mg propranoiol
IN PATIENTS UNDERGOING MAJOR SURGERY, beta-blockade impairs the ability of the IN PATIENTS UNDERSOING MAJOR SURGERY, beta-blockade impairs the ability of the heart to respond to reflex stimuli. Except in plenchromocytoma, progranoid should be withdrawn 48 hour pror to surgery. In case of emergency surgery, the effects of pro-prenoid can be reversed by a diaministration of beta-receptor agonists such as isopro-terenoi or levarterenoi, but such patients may be subject to protracted severe hypotension. Difficulty in restarting and martialing the heart beat has been reported. OHTIS, EMPSTEND, administer with caution, since propriation and the processing of the programment of the propriation of the propriatio

tion produced by endogenous and exogenous catecholamine stimulation of beta-receptors

DIABETICS AND PATIENTS SUBJECT TO HYPOGLYCEMIA Propranolol may prevent the appearance of premonitory signs and symptoms (pulse rate and pressure changes acute hypoglycemia, especially in patients with labile diabetes. A precipitous ele

blood pressure may accompany hypoglycemic attacks.

USE IN PREGNANCY: Safe use in human pregnancy not established. Embryotoxic effects have been seen in animals at doses about 10 times the maximum recommended human dose

PRECAUTIONS

Patients receiving catecholamine depleting drugs such as reserpine should be closely observed it proprandol is administered, since it may occasionally produce hypotension and/or marked bradycardia resulting in verigio, syn sion

Observe laboratory parameters at regular intervals. Use with caution in patients with impaired renal or hepatic function

ADVERSE REACTIONS

Cardiovascular bradycardia, congestive heart failure, intensification of AV block, hypot Cardiovascular undergradia, consignation and interest expension of a violet, hypotoson, paresthesia of hands, afterial insufficiency usually of the Raynaud type, thromboc topenic purpura. Certral Nervous System: lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catationia, visual disturbances, hallucinations; an acute reversible syndrom. characterized by disorientation for time and place, short term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometric

radinity singlify doubled sensorium, and decreased performance on neuropsyctomients (Sastrointestinal: nausea, vormiting, epigastific distress, abdominal cramping, diarrhea, constipation, mesentienc arterial thrombosis, ischemic colitis. Allergic pharyngitis and agranulocytosis, erythematous rash, lever combined with aching and sore throat, laryn, spasm and respiratory distress. Respiratory bronchospasm Hematologic agranulocy. tosis, nonthrombocytopenic purpura, thrombocytopenic purpura Miscellaneous. reversible alopecia. Oculomucocutaneous reactions involving the skin, serous membra and conjunctivae reported for a beta-blocker (practolol) have not been conclusively as ciated with propranolol. Clinical Laboratory Test Findings: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase

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Reference: 1 Freis, E.D. Hypertension (Suppl. II) 3:230 (Nov.-Dec.) 1981



New Jersey's Fifth Pathway: The Returns for the Effort

GORDON N. FRENCH, M.D., and JOAN R. SEMEN, Piscataway*

The Fifth Channel Program in New Jersey has certified 708 physicians in the past ten years. Half of these physicians took their first year of residency in New Jersey hospitals—236 are licensed and 183 reside in New Jersey. Their eventual special qualifications are discussed.

hoever first conceived a "doctor shortage" is obscure, but the response is documented abundantly. The few rational challenges to the notion, by Peterson for example, were unheeded. Now, we are said to be facing a burgeoning superabundance. If what constituted a sufficiency was lacking, the more recent judgment may be as suspect as the first.

During the 1970s, a large contingent of foreign medical graduates entered the pool of practicing physicians in this country; most of these physicians were or became immigrants. In the last few years the number of immigrants has been reduced emphatically, but the number of United States students studying abroad and returning one way or another has accelerated. This fact, and especially the New York Board of Regents's response to it, has captured wide attention. It is a real problem on several accounts. First, it is an escape from a deliberate reduction in undergraduates accepted to domestic medical schools—a problem of numbers. Second, foreign-trained students, as a whole, may represent a permanent defect in quality.

What forces tend to support the increasing flow of these obsysticians with inferior educational histories and for whom here is increasing inability to demonstrate improvement in earning despite years of approved postgraduate training? One force stems from the widely held and often spoken thesis hat a large number of qualified candidates for medical school are turned away from domestic schools by the limited

number of openings and by arbitrary criteria of selection. Experience with Fifth Pathway Programs may be instructive on these points and is the burden of this report.

FIFTH CHANNEL PROGRAM

The Fifth Channel Program in New Jersey is in its tenth year. The four other "pathways" and the fifth pathway are methods by which foreign medical graduates and United States citizens studying abroad may be authorized to practice American medicine; that is, the graduates take United States residency training and become licensed in one or more of the several states. The other four mechanisms are:

- 1. To transfer to a United States school, formerly called COTRANS, that originally required successful completion of Part I of the National Boards and now requires taking the MSKP examination.
 - 2. To become licensed in a state.
 - 3. To obtain an ECFMG certificate.
- 4. To be assured of a license following a United States residency training program.

The Fifth Pathway is a year of supervised clinical training under the auspices of an American medical school. New

*From UMDNJ-Rutgers Medical School, Piscataway, where Dr. French is Associate Dean and Director, and Mrs. Semen is the Administrative Assistant, Fifth Channel Program. Correspondence may be addressed to Mrs. Semen, Fifth Channel Program in New Jersey, UMDNJ-Rutgers Medical School, P.O. Box 101, Piscataway, NJ 08854.

TABLE 1 Fifth Channel Students Acceptance Qualifications Program Residents of Passed ECFMG Passed NBME Pt. I NJ 0-0-S NJ 0-0-S Year No. NJ 0-0-5 1972-73 19 12 5 2 0 1973-74 60 26 34 4 8 1 0 1974-75 51 30 16 81 6 1 0 85 53 32 24 1975-76 6 3 1 22 28 1976-77 87 65 8 2 1977-78 79 36 43 31 33 5 5 1978-79 109 81 28 59 27 7 2 1979-80 107 86 21 86 18 13 10 91 71 20 71 20 7 2 1980-81 71 1981-82 94 23 71 23 21 5

395

151

61

26

		TA	BLE 2		
	F	ifth Channel Gra	duates in New J	ersey	
		PGY-1	in NJ	Actively	License and
Program		Origi	inally	Licensed	Address In
Year	No.	NJ	0-0-S	in NJ	NJ
1972-73	19	10	2	7	6
1973-74	50	15	19	22	15
1974-75	81	. 38	11	46	33
1975-76	85	35	16	36	24
1976-77	87	51	13	38	29
1977-78	79	33	16	28	22
1978-79	109	53	10	42	39
1979-80	107	64	9	17*	15*
Subtotals	617	299	96	236	183
1980-81	91	49	6	**	**
Totals	708	348	102	236	183
*First year of eligi	bility				
**Not eligible					

Jersey's Fifth Pathway program is the largest under a single auspice; in this case, the University of Medicine and Dentistry of New Jersey, but New York State has a larger number of Fifth Pathway students. The program in New Jersey was increased in size to involve ten hospitals and 107 students. In the past two years, one hospital dropped out because it changed its affiliation to an out-of-state medical school; in its place an affiliate of UMDNJ was picked up. Two other hospitals this past year left the program to develop contracts to train fourth-year medical students in the Caribbean schools.

812

552

260

Totals

Table I shows the number of New Jersey students and out-of-state students who entered the program in each of the active years and some of their qualifications. From the beginning, all candidates were required to have a baccalaureate degree from an accredited United States college and the general scientific requirements for United States medical schools, and to present the results of either or both an ECFMG examination or Part I of the National Boards. As may be seen, it was not until 1978 that either New Jersey or out-of-state students were required to pass one or the other of these examinations. Since 1978 all students are required to have a passing grade in the ECFMG examination.

Of the 708 students who completed the program in the past eight years, 450 took their first postgraduate year of training in New Jersey. Fewer than one-half of the out-of-state students remained. It should be noted that program diplomates who remain for their first postgraduate year in.

New Jersey, at the end of that time, are reimbursed half of the tuition fee. This fact puts a strain on the assumption that those who initiated their training in New Jersey remained to complete it here.

Table 2 shows information gained from the New Jersey Board of Medical Examiners: how many students from each class currently are licensed in New Jersey and, of these, how many give a current New Jersey address. By 1980, of 617 graduates, 236 graduates (38 percent) were licensed in New Jersey. Of these, 183 graduates (30 percent) also practiced and/or lived in New Jersey. Therefore, for eight years an average of 23 students per year entered presumed practice in the state. Four hundred Fifth Channel diplomates took their first year of training in New Jersey; about half as many now are licensed and live in the state. The other information has been supplied by the American Medical Association and is shown in Table 3. Table 4 shows comparative figures over the past seven years of graduates from UMDNJ-Rutgers Medical School, UMDNJ-New Jersey Medical School, and the Fifth Pathway with respect to entrance into New Jersey residency training programs. Of 891 NJMS graduates, 130 graduates remained; 156 of 463 RMS graduates remained; and of 639 Fifth Pathway graduates, 404 graduates remained.

As the great majority of United States graduates, foreign medical graduates in the United States, and United States foreign medical graduates complete their training in a specialty, it is of interest to know the relative extent of their eventual credentials in respect to such special training. Some

Postgraduate Credentials									
Class	Total No.	Info. on No.	No. Licensed Anywhere	No. Ever Licensed in NJ	No. Address in NJ	No. Board Certified			
1972-73	19	19	17	8	8	6			
1973-74	52	52	49	29	14	10			
1-10/74	10	10	7	5	4	0			
1974-75	65	65	61	38	21	16			
1-10/75	16	16	15	11	5	1			
1975-76	84	84	74	43	34	11			
1976-77	85	85	73	50	37	11			
Subtotals	331	331	296	184	123	55			

n

O

not eligible

not eligible

not eligible

TABLE 3

		First-Year	TABI Residency T	_	w Jersev			
			•	•				
	UMDNJ-NJ	MS		UMDNJ-RMS	;	Fifth Channel		
No. in	No. PGY-1	Percent PGY-1	No. in	Percent PGY-1	Percent PGY-1	No. in	No. PGY-1	Percent PGY-1
Class	NJ	NJ	Class	NJ	NJ	Class	NJ	NJ
112	52	46	34	8	24	81	49	60
132	64	48	55	18	33	85	51	60
127	62	49	55	18	33	87	64	74
128	68	53	56	22	39	79	49	62
129	67	52	75	21	28	109	63	58
132	62	47	90	32	36	107	73	68
131	56	43	98	37	38	91	55	60
891	431	48	463	156	34	639	404	63
	No. in Class 112 132 127 128 129 132 131	No. in PGY-1 Class NJ 112 52 132 64 127 62 128 68 129 67 132 62 131 56	UMDNJ-NJMS No. in PGY-1 PGY-1 Class NJ NJ 112 52 46 48 127 62 49 49 128 68 53 53 129 67 52 47 131 56 43	No. in PGY-1 PGY-1 No. in Class NJ NJ Class 112 52 46 34 132 64 48 55 127 62 49 55 128 68 53 56 129 67 52 75 132 62 47 90 131 56 43 98	No. Percent Percent	UMDNJ-NJMS UMDNJ-RMS No. in PGY-1 PGY-1 PGY-1 Class PGY-1 PGY-	No. Percent Percent	No. Percent Percent Percent No. in PGY-1 PGY-1 PGY-1 No. in PGY-1 PGY-

	TABLE 5			
Pass Rates on Exam	inations of American Boa	rd of Internal M	edicine	
United States Citizen Graduates				
Universidad Autonoma de		ABIM Examinations		
Guadalajara	1977	1978	1979	1980
No. first-time takers	19	25	47	69
No. passed	3	3	9	15
Percent passed	16	12	19	22
No. repeat takers	8	16	18	31
No. passed	2	1	3	5
Percent passed	25	6	17	16
Percent passed of all takers	19	10	18	20

idication of the situation may be gained from the published experience of the American Board of Internal Medicine.² over the years examined, among American graduates of interior medical schools, 81 percent passed the examination on the first try. Of foreign medical graduates (that is, on-United States citizens), 40 percent passed. Of United tates students who studied abroad, 32 percent passed within his group. Of those who studied at the Universidad Automa de Guadalajara in Mexico, 18 percent passed (Table). Of the United States students trained abroad, other than 1 Mexico, 38 percent passed. It should be noted that irtually all the Mexican-trained students probably entered be United States for postgraduate training through Fifth athway programs and, therefore, it is a reasonable pre-

sumption that the 18 percent passed refers to Fifth Pathway graduates.

In pondering this wide discrepancy of performance, consider that every candidate for the Board of Internal Medicine has had at least three years of training in an accredited American residency training program in internal medicine and was certified as fit, in the judgment of the program director, to sit for the examination. All graduates trained in Mexico had attended accredited undergraduate schools, had a year of general clinical training in the Fifth Pathway under the supervision of a United States medical school, and had three years of approved training in internal medicine. It is difficult to imagine that the character and quality of premedical education or the years of training in internal medicine.

1977-78

1978-79

1979-80

1980-81

Totals

cine were determining factors in a fourfold difference in performance.

The difference may lie in something that most writers on this subject prefer to ignore; talent. In our domestic admission processes, we have been relatively successful in recognizing and selecting talent. There is no evidence that we can create it nor can we substitute for it by one or even four years of postgraduate clinical training. The importance of this toward the development of policy regarding undergraduate students in offshore schools seems obvious: if, for some reason of public interest, New Jersey is compelled to facilitate entrance to United States medicine for these students, originally rejected for admission to domestic schools, it should be highly selective in choosing those who may obtain undergraduate clinical training in New Jersey hospitals. UMDNJ-New Jersey Medical School has shown that such selection can be effective as judged by their undergraduate grades after transfer. Its current transfer students from a Caribbean school are performing in the 90th percentile of their class.

There is other evidence that talent is a more critical variable than training with respect to objective measures of medical learning. More than ten years ago, the National Boards compared performance on Part III among interns in university programs, university-affiliated programs, and unaffiliated programs. The average grades of each group were significantly different, with university programs highest and unaffiliated programs lowest. However, when Part II was used as a baseline for each student, the differences vanished. This is to say that performance in Part II is a predictor of performance in Part III, and the site of internship was not shown to be discriminatory. There is similar evidence indicating a relationship between performance in Part I and Part II. Unpublished information from the American Board of Internal Medicine indicates predictability of performance on its examinations from measurable factors available prior to entrance into medical school.

"Among American graduates of American medical schools, 81 percent passed the examination at the first try; of foreign medical graduates (non-United States citizens), 40 percent passed."

From Table I it may be seen that a larger number of New Jersey students have been available recently for the program by having passed the ECFMG examination than during the early years. This presumably is based upon the exposure of the more recent students to some forms of clinical training in the United States prior to taking their ECFMG examination.

A great majority of them received grades of 75 or a few points higher, but American medical students taking the same examination would average in the 80s. Of suggestive significance is the experience with third-year medical students at the University of Pennsylvania 12 years ago who took Part III of the National Boards during their third year, at a time when none of them had completed all of the core clinical subjects and were not yet eligible to take Part II. Eighty-five percent of them passed Part III of the examinations

SUMMARY

The Fifth Channel Program in New Jersey has produced, at low cost, a large fraction of the physicians entering practice in New Jersey over the past five years. Along the way, the majority occupied residency positions in New Jersey hospitals.

From national experience with Fifth Pathway diplomates taking the American Board of Internal Medicine's examinations, we should expect in the order of 20 percent of New Jersey diplomates to have passed them, i.e. a rate one-quarter that of United States graduates. It is not unreasonable to anticipate similar results in other specialty boards despite full postgraduate training after the Fifth Pathway year in accredited United States specialty training. This enormous gar in performance implies not only a corresponding gap in relevant knowledge, but also an inability to acquire such knowledge. This is sobering evidence that the postgraduate learning capacity of this group radically is less than that of graduates of United States medical schools and that only a minority of them will become accredited in a major specialty Training cannot account for this great defect nor can it remedy it. The importance of this fact toward the development of policy regarding undergraduate students in offshore schools seems obvious: if, for some reason of public interest. New Jersey is compelled to facilitate entrance to United States medicine for these students, originally rejected for admission to domestic schools, it should be highly selective in choosing those who may obtain undergraduate clinical training in New Jersey hospitals. UMDNJ-New Jersey Medical School has shown that such selection can be effective as judged by their undergraduate grades after transfer.

In furthering the training of United States students of foreign medical schools, policy should be directed toward selectivity. As national policy is moving toward the restriction of numbers of new physicians, New Jersey should consider where its own efforts at limiting numbers should begin.

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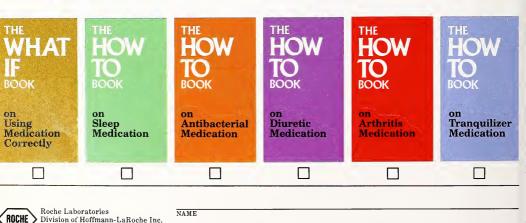
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Prolonged Total Parenteral Nutrition Using the Broviac Catheter

IRWIN H. KRASNA, M.D., and SHMUEL C. SHAPIRA, M.D., Piscataway*

The use of Broviac catheter for prolonged total parenteral nutrition has been relatively free of complications and the catheter has remained in place for extended periods of time with complete safety. In addition, the ability to discontinue intravenous nutrition for hours or days, while maintaining catheter patency, strongly recommends its use for prolonged hyperalimentation or vascular access.

ince the demonstration by Dudrick in 1968 of the feasibility of prolonged long-term parenteral nutrition to maintain growth, development, and positive nitrogen balance, "hyperalimentation" has become a common modality in the management of patients who cannot eat.¹ Catheters are inserted in a major vein, usually the superior vena cava, by way of a large peripheral vein. The most common complications of total parenteral nutrition (TPN) in pediatric patients are related to the catheter and include sepsis, thrombosis, and accidental dislodgement.²-4

A new circulatory access, the Broviac catheter (Figure 1) was devised in 1973.⁵ The proximal end of this centrally placed silastic catheter exits to the skin of the chest or abdominal wall through a long subcutaneous tunnel (Figure 2), and has a Luer-lok that allows it to be closed with a screw cap when not being used for TPN. A dacron sleeve is located just below the site of exit from the skin and prevents dislodging, and also acts as a mechanical barrier to infections.

Since April, 1979, we have used the Broviac catheter for all cases of TPN where we anticipated more than 30 days of treatment. We have placed 11 catheters in seven patients, and have complete followup on all patients.

The purpose of this paper is to present our experiences with this catheter.

MATERIAL AND METHODS

All catheters were put in place in the operating room under aseptic conditions. We used both adult and pediatric

catheters (Nos. 201 and 204), depending on availability. The patients were anesthetized lightly with Ketamine® and a suitable vein was chosen, depending on which veins still were patent (Figure 2). A long subcutaneous tunnel was created using a mosquito clamp and the catheter was brought through the tunnel before placing it into the vein. The position of the catheter tip was checked by x-ray; the catheter was secured in the vein with three sutures of chromic catgut or silk, and was sutured to the skin near the site of exit (Figure 2). The distal vein was ligated. Point of exit was either close to the nipple or two cm from the umbilicus. The veins utilized were the external or internal jugular, cephalic in the deltopectoral groove, cephalic or brachial vein in the arm, femoral vein, or inferior vena cava.

Routine antibiotics were not used. Dressings were changed every three days using masks, gowns, and gloves. The site of catheter exit was cleaned with acetone, H₂O₂, Betadine®, and a Betadine® ointment dressing was placed. A summary of our experience is shown in the Table.

RESULTS

In no instance were there any catheter-related complications such as sepsis or thrombosis; however, there were three other complications that necessitated removal of the

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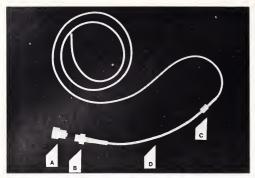


Figure 1—Broviac catheter: A) Luer-lok "male" part; B) Luer-lok "female" part; C) Dacron sleeve; D) Silastic catheter.

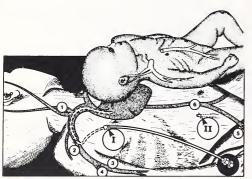


Figure 2—Optional sites of exit and entry for the Broviac catheter. I) Point of exit near the nipple (for SVC); II) Point of exit near the umbilicus (for IVC). 1. External and internal jugular vein. 2. Cephalic vein, deltopectoral groove. 3. Basilic vein. 4. Cephalic vein, distal portion. 5. Femoral vein. 6. Inferior vena cava.

catheter. In one patient $(2_{\rm II})$ the catheter accidentally was dislodged after being in place for 390 days. In another patient $(2_{\rm I})$, while in another institution, the catheter was cut by a nurse while changing the dressing. In a third patient, the catheter became clogged with precipitated CaPO₄ crystals $(7_{\rm I})$, and it was determined that an incorrect concentration of calcium in the solution caused the precipitation in the catheter. All other catheters were removed by design after the patient's underlying condition had improved and there was no further need for TPN, or upon the death of the patient.

Three of the patients (2, 5, and 7) were placed on a modified home total parenteral nutrition program (HTPN). It was our original intention to teach the parents how to administer the solution at home. However, the parents were fearful of the responsibility of home nutrition. Therefore, we admitted the patients during the daytime hours for TPN in the hospital and they spent nights or weekends at home with a heparin Luer-lok on the catheter.

The average length of time that the catheter remained in place was 114.8 days. Four patients had the catheter in place for 390, 244, 150, and 120 days ($2_{\rm II}$, $4_{\rm II}$, $2_{\rm III}$, and 5) respectively, a length of time that was unattainable with conventional catheters. In the three patients who died while the catheter was in place (1, 3, and 4), the catheter was not thought to be related to the deaths. (3 and 4 had postmortems that confirmed these findings).

A significant advantage that the catheters afforded was the psychological boost to the patients of not being "tied" indefinitely to a bottle and a pump in the hospital. They could be disconnected and go for a walk or go home for a few hours or overnight. This was a great help in caring for the children.

One patient had three separate catheters inserted (2), and his survival is attributable directly to this technique. Two patients (4 and 7) had two separate catheters inserted. Patient 7, a cancer patient, demonstrated a variation in the use of the Broviac catheter. This child had stage IV neuroblastoma with a gigantic abdominal mass, was unable to eat, and was severely malnourished. The Broviac catheter served a dual purpose in her case—for parenteral nutrition and for vascular access for chemotherapy and administration of blood and blood products. When she developed bilateral chylothorax with copious fluid loss, the catheter enabled us to keep up with her fluid, caloric, and protein needs until the chylothorax resolved in two weeks.

DISCUSSION

Central hyperalimentation for short bowel syndrome, chronic diarrhea, or other conditions in which the patient either cannot or may not eat has revolutionized modern surgical and medical care of children. In the small child who may "outgrow" his/her underlying condition, often it is necessary to maintain TPN for months or years before the patient can sustain nutrition by the oral route alone. Peripheral intravenous nutrition (PIN)6 can be used in the short term to avoid risks accompanying central venous catheterization. Long-term infusions of the magnitude described can be managed only by prolonged central venous hyperalimentation.

Complications related to catheter use still cause significant morbidity and mortality and are the most common reasons for discontinuing TPN.² Heird reported 61 complications related to catheter use in 118 patients; septicemia represented 72 percent of these complications.² Other complications arising from the use of central venous catheters are thrombosis of a major vessel, plugging or dislodgement of the catheter, improper catheter placement, extravasation of fluid, and local skin infection.

"The most common complications of total parenteral nutrition in pediatric patients are sepsis, thrombosis, and accidental dislodgement."

The use of polyvinyl and polyethylene catheters has been replaced by silastic catheters in recent years and the incidence of sepsis has dropped. However, dislodgement and thrombosis still occur, although much less frequently. Since it is impossible to clamp ordinary catheters and maintain patency, the patient is connected to the apparatus 24 hours a day. The Broviac catheter eliminates both of these objections. It has a Luer-lok attachment that can be closed and patency assured by prior flushing with a heparin solution. The catheter can be disconnected for 12 to 24 hours or longer and a second flush with heparin readies it for use again. Also, the

TABLE Broviac Catheter Experience

Case No.	Age (years)	Catheterization Date	Reason for Catheterization	Vessel of Insertion	Length of Time in Place	Reason for Removal	Catheter- related Complications
1.	1-6/12	4/24/79	Short bowel syndrome Hirschsprung's disease		71 (days)	Death from neurologic causes	None
21.	1-6/12	5/1/79	Chronic diarrhea Malabsorption syndrome Chronic malnutrition		64 (days)	Inadvertently cut	None
11.	1-8/12	8/2/79	Chronic diarrhea Malabsorption syndrome Chronic malnutrition		390 (days)	Inadvertently removed	None
111.	2-9/12	9/4/80	Chronic diarrhea Malabsorption syndrome Chronic malnutrition		150+ (days)	Still in place	None
3.	2	6/21/79	Chronic renal failure Hypertensive encephalopathy Severe malnutrition		6 (days)	Death from encephalopathy and renal failure (confirmed on P.M.)	None
41.	2/12	12/28/79	Combined immune deficiency Malabsorption Malnutrition		49 (days)	Improvement in patient's condition	None
11.	5/12	3/18/80	Combined immune deficiency Malabsorption Malnutrition		244 (days)	Death from pneumonia (confirmed on P.M.)	None
5.	6/12	2/11/80	Hirschsprung's disease Chronic malnutrition Subtotal gastrectomy		120 (days)	Nourishment by mouth adequate	None
6.	2/12	3/17/80	Hypoglycemia	(Mar)	50 (days)	Hypoglycemia controlled by oral medication	None
71.	3	9/23/80	Neuroblastoma Malnutrition Vascular access		66 (days)	Clogging of catheter with CaPO ₄ crystals due to improper mixing of solution	None
II.	3-2/12	12/11/80	Neuroblastoma Malnutrition Vascular access	E	53+ (days)	Still in place	None

dacron cuff present near the exit site causes intense fibrosis and dislodgement is rare. This area also acts as a mechanical barrier to infection. In women, the catheter usually is worn in the brassiere; in men, the catheter is taped to the chest. In small babies, the saphenous vein is the site of choice and the catheter is brought out near the umbilicus, away from the perineum.

In our series, we were surprised at the length of time that the catheters stayed in place, even when the parents were responsible for all dressing changes. The complete reliability of these catheters enabled us to plan for prolonged hyperalimentation in many of these cases. The use of this catheter in cancer patients was prompted by the report of Levey et al. Vascular access catheters in cancer patients avoid exhausting the limited supply of veins by repeated injections of corrosive thrombogenic substances that cause progressive discomfort to the patient. Levey et al. prefer a loop fistula connecting the saphenous vein to the superficial femoral artery, but use synthetic materials when necessary. The severely malnourished condition of our patient prompted us to insert a Broviac catheter to provide her with adequate nutrition as well as to provide vascular access for chemotherapy and administrations of blood and blood products.

SUMMARY

Since April, 1979, we have utilized catheters for all cases of central venous hyperalimentation, where the catheter was to be in place for more than 30 days. Eleven catheters were placed in seven patients. Three of the patients were treated at home for various periods of time when the catheter was not in use, and were nourished parenterally while they were in the hospital. The average length of time that the catheter remained in place was 114.8 days, with four patients having the catheter in place for 390, 244, 150, and 120 days, respectively. One catheter inadvertently was removed on day 390, one inadvertently was cut on day 64, and a third was clogged by precipitated CaPO₄ due to an error in the concentration of the solution. All others were removed electively when the patients improved and did not need hyperalimentation or when the patient died. The absence of complications, the safety and ease of insertion, and the possibility of disconnecting the patient for varying periods of time are the major advantages of the Broviac catheter whenever prolonged central alimentation is contemplated.

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The Physician's Sleep Glossary

Some common sleep laboratory terms

poly-som-no-graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la-ten-cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af-ter sleep on-set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to-tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.¹

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.²

re-bound in-som-nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.³



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Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCI, pregnancy: Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible com bined effects with alcohol and other CNS depres sants. An additive effect may occur if alcohol is consumed the day following use for nighttime seda tion. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness talkativeness, apprehension, irritability, weakness palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occur rences of leukopenia, granulocytopenia, sweating flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depres sion, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. Adults: 30 mg usual dosage; 15 mg may suffice in some patients. Elderly or debilitated patients: 15 mg recommended initially until response is determined.

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Elevated Serum Acid Phosphatase in Chronic Myelomonocytic Leukemia

ANDREW B. STEFANIWSKY, M.D., HUGH C. KIM, M.D., YONG M. CHO, M.S., PARVIN SAIDI, M.D., Piscataway*

A patient with chronic myelomonocytic leukemia (CMML) and increased serum acid phosphatase is described. Metastatic prostatic carcinoma and other known causes of increased acid phosphatase were excluded. Leukemic cell culture showed increasing enzyme activity indicating that the myelomonocytic cells are the probable source. CMML should be considered in the differential diagnosis of elevated serum acid phosphatase.

erum acid phosphatase is a useful marker in diagnosing prostatic cancer with metastases.\(^1\) Although increased serum acid phosphatase has been noted in association with hematologic malignancies, such as acute and chronic granulocytic leukemia and acute and chronic lymphocytic leukemia.\(^2\) It never has been demonstrated that the elevated serum enzyme in these cases originates in the leukemic cells.

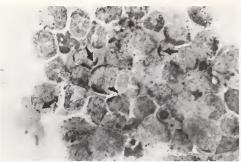
This report presents a patient with chronic myelomonocytic leukemia in whom histochemical and bone marrow culture studies were undertaken to determine the origin of a persistent elevated serum acid phosphatase.

CASE HISTORY

An 80-year-old male was referred to the hematology service in April, 1978, because of leukocytosis, monocytosis, and thrombocytopenia discovered on routine blood count. The patient had been in relatively good health, except for a recent superficial thrombophlebitis involving the right calf. There was no history of fever, night sweats, skin rash, or bone pains. Physical examination revealed a well-developed, elderly male. No petechiae or ecchymosis, gum hyperplasia, or lymphadenopathy were noted. The liver was not enlarged. The spleen was palpable two cm below the left costal margin. Rectal examination revealed the prostate moderately enlarged, but without nodules or masses. The right calf was superficially inflamed and erythematous. No thrombosed

veins were palpated. The remainder of the examination was unremarkable. Hemoglobin was 12.4 gm/dl, hematocrit, 37.2% with normal RBC indices. WBC was 18,000/mm3 with 40% monocytes, 35% polys, 8% band, 12% lymphs, 2% eos, 1% baso, and 2% atypical lymphs. Platelet count was 37,000/mm³. Serum calcium was 9.4 mg/dl, total protein 7.8 gm/dl, albumin 4.2 gm/dl, uric acid 8.3 mg/dl, and alkaline phosphatase 58 IU (normal 30-115 IU). Serum acid phosphatase was elevated to 5.6 IU/L (normal 0-2.0). Serum lysozyme was 80 ug/ml (normal 3.0-12.8); urine lysozyme was 400 ug/ml (normal 0-2.1). Peripheral smear disclosed normochromic and normocytic erythrocytes with mild anisopoikilocytosis. The monocytes appeared normal, but were increased markedly. The bone marrow smear revealed severe myeloid hyperplasia with predominance of blasts, promyelocytes, and promonocytes; they accounted for 45 percent of all cellular elements. Acid phosphatase stain was strongly positive (+3 to +4) in the promyelocytes, promonocytes, and monocytes, and was completely inhibited by L(+) tartrate (Figure). A nonspecific esterase stain also was positive in the promonocytes and monocytes. Chromosome analysis of the bone marrow cells did not show any Philadelphia chromosome, but there were extra D chromosomes in three of ten cells.

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Figure—Bone marrow smear stained for acid phosphatase (1000 x). Immature forms of monocytes that contain prominent acid phosphatase positive, dark staining granules in the cytoplasm (arrows).

The diagnosis of chronic myelomonocytic leukemia was made. The patient has been in good health without any chemotherapy for over three years of followup. Serial blood counts showed a stable hemoglobin but persistent leukocytosis ranging between 12 to 25,000/mm³ and monocytosis ranging between 32 to 42 percent. The serum acid phosphatase level has remained elevated between 5.0 to 8.2 IU. Repeat examinations of the prostate revealed no change in size and no appearance of nodules. Prostate biopsy was not performed because of thrombocytopenia. A bone scan repeated 22 months after the initial one was competelely normal.

MATERIALS AND METHODS

A two ml sample of heparinized bone marrow was obtained. Cells were diluted with McCoy's 5A Medium, supplemented with 10 percent fetal calf serum, overlayed on a cushion of 10 ml Ficoll-Hypaque, and centrifuged at 500 g for 30 minutes at 20°C.5 The leukemic immature cells and mononuclear cells present in the interphase were obtained and washed three times with phosphate buffered saline. To quantitate cellular acid phosphatase activity, an aliquot of leukemic cells was lysed by suspension in 5 percent Triton X-100 in a final concentration of 2x106 cells/ml, followed by three cycles of freeze and thaw treatment. The lysate was centrifuged at 1,000 g for 30 minutes at 4°C and the supernatant of the lysate was used for enzyme determinations. To determine the enzyme released into the medium, the leukemic cells were suspended in complete culture medium containing 10 percent fetal calf serum, plated on Falcon flasks at a final cell concentration of 2x106 cells/ml, and incubated at 37°C with 5 percent CO2 and humidity. Culture mediums, at intervals of 1 hour, 24 hours, 72 hours, and 120 hours, were obtained by centrifugation at 500 g for 20

Acid phosphatase was determined as described by Babson and Phillip using alpha-naphthyl phosphate as the substrate. One international unit (IU) of acid phosphatase is defined as that amount of enzyme that utilizes one micromole of substrate per minute. Lysozyme assay was performed as described by Perry which measures the rate of lysis of Micrococcus lysodeikticus with egg white lysozyme (Worthington Diagnostics) as the standard.

RESULTS

The Table illustrates the acid phosphatase and lysozyme in serum, leukemic cell lysate, and enzyme released into the culture medium during 1 hour, 24 hours, 72 hours, and 120 hours of incubation. Serum obtained at the time of bone marrow sampling reveals a moderately increased level of acid phosphatase. The lysate of leukemic cells shows acid phosphatase activity as a possible source of the elevated serum enzyme. The acid phosphatase enzyme in the culture medium during the different intervals shows progressive increase in activity up to 120 hours of incubation indicating that the leukemic cells release the cytoplasmic enzyme into the medium. The enzyme activity of 1.5 IU present in the culture medium in 1 hour of incubation is thought to be a contribution of fetal calf serum contained in the cultured medium since the culture medium without the leukemic cells also shows equivalent acid phosphatase activity. The serum lysozyme in this patient also was found to be elevated. The lysozyme level in the supernate of the culture also shows progressive increase suggesting that the leukemic cells release the lysozyme into the culture medium. The cell concentration which was plated originally at 2x106/ml showed no significant change in number during the culture up to 120 hours, suggesting that the increased enzyme activity in the culture medium is not due to the release of enzyme with cell death.

DISCUSSION

Chronic or subacute myelomonocytic leukemia (CMML) may be regarded as a variant form of myeloid leukemia. 8-10 It is characterized by an insidious onset, slight anemia, peripheral monocytosis, thrombocytopenia with qualitative platelet abnormalities, splenomegaly, and an increased number of blasts and promonocytes in the bone marrow. In contrast with pure monocytic leukemia, there is no adenopathy or skin or gum involvement. Although the progression to acute myelomonocytic leukemia is frequent in the end stage, the majority of patients are elderly with a chronic and relatively benign course. Because of this, treatment should be conservative and chemotherapy reserved only for patients with an active aggressive clinical course. 8-10 It is characteristic and chemotherapy reserved only for patients with an active aggressive clinical course. 8-10 It is characteristic and chemotherapy reserved only for patients with an active aggressive clinical course.

"CMML is characterized by an insidious onset, slight anemia, peripheral monocytosis, thrombocytopenia with qualitative platelet abnormalities, splenomegaly, and an increased number of blasts and promonocytes in the bone marrow."

The diagnosis of CMML in our patient was based on persistent leukocytosis, monocytosis, increased blasts and promonocytes in the bone marrow, moderate thrombocytopenia, splenomegaly, and a stable clinical course for more than three years without any chemotherapy. These findings conform to the recognized criteria of CMML.*11

The origin of the elevated serum acid phosphatase in our patient represented a diagnostic dilemma. Both metastatic prostatic carcinoma and myelomonocytes produce acid phosphates. Yam and Li have demonstrated that the acid phosphatase can be separated electrophoretically into seven isoenzymes, each specific for different tissues.^{12,13} However,

TABLE

Acid Phosphatase and Lysozyme Activity in Serum, Leukemic Cell Lysates, and Leukemic Cell Culture Medium

		Leukemic Cell Lysate*	Enzyn	ne Released in	to Culture Me	edium**
	Serum	(2x10 ⁶ cells/ml)	1 hr	24 hrs	72 hrs	120 hrs
Acid Phosphatase (IU)	5.0 (Normal 0-2)	8.3	1.5	2.3	3.0	3.5
Lysozyme (ug/ml)	80.0 (Normal 3-12.4)	1.3	0	4.3	5.6	6.8

*Leukemic cell lysate represents the cellular enzyme activity present in Ficoll-Hypaque-enriched bone marrow cells.

prostatic and monocytic cells produce the same two isoenzymes.⁴ The inhibition caused by L(+) tartrate is highly but not completely specific for acid phosphatase of prostatic origin. It has been shown that the isoenzymes derived from both the prostate and monocytes are inhibited by L(+) tartrate.¹³ Consequently, neither of these techniques were useful in determining the origin of the acid phosphatase in our patient.

By using a technique reported here, we have demonstrated that the increased serum acid phosphatase appears to be due to the myelomonocytic leukemia in view of the demonstrable enzyme within the leukemic cells and increasing enzyme activity in the culture media during the leukemic cell culture in vitro. Increased serum lysozyme often is seen in myelomonocytic and monocytic leukemias¹⁵ and it serves as a useful protein marker not only in our patient but also in distinguishing other types of leukemias.

Although the diagnosis of prostatic carcinoma as a cause of increased serum acid phosphatase was considered in our patient, it virtually was excluded because of the lack of clinical manifestations during a three-year followup. The cellular acid phosphatase activity is known to be very strong in monocytes, histiocytes, megakaryocytes, and plasma cells; whereas it is very moderate to very weak in the immature granulocytes, lymphocytes, and lymphoblasts.¹³⁻¹⁴ Whether an increased serum acid phosphatase in CMML is a frequent finding or whether it can be used as a protein marker for CMML remains to be clarified. Differential diagnosis for elevated serum acid phosphatase should include chronic myelomonocytic leukemia.

SUMMARY

A moderately increased serum acid phosphatase was observed in a patient with chronic myelomonocytic leukemia for more than three years without chemotherapy. Leukemic cells in this patient revealed strong acid phosphatase reaction cytochemically and complete inhibition by L(+) tartrate. The leukemic cell culture showed increasing enzyme activity

in the culture media up to 120 hours of incubation indicating that the myelomonocytic leukemic cells are a probable source of the elevated serum acid phosphatase in this patient. Other causes for the elevated serum acid phosphatase, including prostatic carcinoma, were excluded in this patient. Chronic myelomonocytic leukemia also should be considered as a differential diagnosis in patients with an elevated serum acid phosphatase.

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^{**}Leukemic cells enriched by Ficoll-Hypaque gradient were cultured at 2x10° cells/ml. Culture mediums were obtained at intervals.

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STATE OF THE ART

Hepatic Encephalopathy

STEVEN DAVIDOFF, M.D., and WARREN WERBITT, M.D., Cherry Hill*

Hepatic encephalopathy is a neuropsychiatric syndrome with a wide spectrum of clinical manifestations ranging from subtle disturbances in behavior to frank coma. Its pathogenesis still is speculative. Treatment for encephalopathy has been based upon an avid search for precipitating factors and measures designed to reduce levels of ammonia and nitrogenous waste. Lactulose and/or neomycin remain the mainstay of drug therapy.

epatic encephalopathy is a neuropsychiatric syndrome secondary to acute liver failure, chronic liver disease, or surgical portal-systemic shunting. It is a syndrome manifested by changes in mental status, neurological abnormalities, and parenchymal liver disease.

CLINICAL MANIFESTATIONS

There is a wide spectrum of mental changes associated with hepatic encephalopathy. During the prodrome of hepatic encephalopathy, euphoria is usual but depression occasionally is seen. Confusion may be absent or difficult to detect. Slight slowing of mentation and untidiness may be early and subtle signs of encephalopathy. Asterixis often is present but is slight; EEG changes are absent in most cases. Asterixis, a flapping bilateral tremor elicited during sustained posture, is the most notable neurologic sign, although it is not specific for hepatic disease and is found in patients with uremia, congestive heart failure, and pulmonary insufficiency. Impending hepatic coma presents with confusion, euphoria, drowsiness, and inappropriate behavior. Asterixis, hyperreflexia, and EEG abnormalities are present. With progression to stupor, the patient sleeps most of the time; the patient is arousable but markedly confused. Asterixis generally will be found if the patient can cooperate and EEG changes almost always are present. When coma secondary to hepatic insufficiency develops, the patient may respond to noxious stimuli, but asterixis frequently is absent; EEG changes often are present at this stage.2

Most neurologic deficits are transient and abate if the encephalopathy is treated or change if the coma deepens. However, if chronic and recurrent encephalopathy occur, two neuropsychiatric syndromes may develop that result in permanent neurologic deficits. Both are extremely rare and are seen in patients with either large portal-systemic shunts due to cirrhosis or following surgical decompression of the portal system.

Chronic hepatocerebral degeneration is manifested by dysarthria, cerebellar ataxia, and involuntary movements usually in the form of irregular sinuous movements of the head, extremities, and trunk with protrusion and retraction of the tongue and lips and alternating flexion and extension of the hands and feet.

Spastic paraparesis is characterized by spasticity of the lower extremities, increased deep tendon reflexes, and extensive plantar responses; there is no associated sensory deficit.

These syndromes are associated with definite permanent structural changes in the brain stem and spinal cord.

EEG ABNORMALITIES

The EEG abnormalities are nonspecific and similar to

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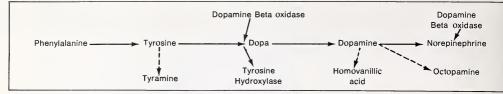


Figure-Pathogenesis of hepatic coma.

those seen with other metabolic encephalopathies. The abnormality in the electroencephalogram is characterized by slowing of electrical activity and the presence of triphasic waves.

PATHOLOGIC CHANGES

The gross appearance of the brain may be normal although diffuse cerebral edema may be seen. Microscopically, a variety of changes have been noted in the brains of patients with hepatic encephalopathy. There is a diffuse increase in the size and number of protoplasmic astrocytes. Later, the Alzheimer type II astrocyte can be found reflecting a degenerative gliopathy. The significance of these changes is not understood fully, for similar astrocytic changes have been produced experimentally by inducing hyperammonemia even in the absence of liver disease.

BLOOD AND CSF ABNORMALITIES

A number of abnormalities can be found in the blood and cerebral spinal fluid of patients with portal-systemic encephalopathy. Arterial ammonia levels usually are elevated but the absolute level of ammonia does not correlate with the degree of coma. Serial ammonia values may help reflect the patient's changing clinical course. However, one must remember that 10 percent of patients with hepatic coma have normal arterial ammonia levels.

Measuring cerebral spinal fluid glutamine or alphaketoglutamate levels may be helpful as they may correlate better with the state of consciousness than arterial ammonia levels. In severe liver disease, excess ammonia passes into the cerebral spinal fluid where it combines with alphaketoglutaric acid to form glutamic acid.

PATHOGENESIS

The pathogenesis of this syndrome remains speculative. However, there is general agreement that in the majority of instances hepatic encephalopathy is a metabolic neurophysiologic, rather than structural, disorder of the brain. The liver serves as a detoxifying organ; therefore, toxins escaping metabolism by the damaged liver have been looked for. The substances most commonly incriminated are ammonia, short-change fatty acids, mercaptans, and amino acids. The majority of these compounds are nitrogenous in origin and are thought to arise from the gut as a result of the interactions of intestinal bacteria with proteins. The toxins may induce coma by several mechanisms. They may cause impaired synaptic transmission as the result of deranged neurotransmitter balance; they may alter neuronal membrane function and/or alter brain energy metabolism. Alterations in plasma and cerebral spinal fluid amino acids also have been implicated in the pathogenesis of hepatic coma.

Patients with chronic liver disease and superimposed acute insults, such as gastrointestinal bleeding, infection, or alcoholic hepatitis, have been found to have elevated levels of the aromatic amino acids (phenylalanine, tyrosine, and tryp-

tophan) as well as the straight chain amino acids (methionine, glutamate, and aspartate). Levels of the branched chain amino acids (valine, leucine, and isoleucine consistently were depressed. Normally, there is competition between aromatic amino acids, phenylalanine, tyrosine, and tryptophan and the branched chain amino acids for passage through the blood brain barrier. It may be that this barrier is disrupted in hepatic coma, permitting the free passage of aromatic amino acids, irrespective of the presence of branched chain amino acids. Attention has been focused or phenylalanine and tyrosine because of their precursor relationship to brain catecholamines and because octopamine homovanillic acid, and phenylethanolamine accumulate ir the cerebral spinal fluid in hepatic coma (Figure).

Excess phenylalanine competes with tyrosine for the enzyme tyrosine hydroxylase and a resultant excess tyrosine is decarboxylated to tyramine. Tyramine competes with dopamine for dopamine beta oxidase resulting in the conversion of dopamine to octopamine and the decrease ir formation of dopamine and norepinephrine. Excess octopamine, a weak neurotransmitter, replaces norepinephrine ir the synaptosomes and interferes with brain function, ultimately yielding coma. This is the basis of the false neurotransmitter-hypothesis of hepatic coma. Attention also has been focused on tryptophan because of its precursor relationship to brain serotonin, a putative neurotransmitter. The definite role of this change remains to be elucidated.

Increased concentrations of these false neurotransmitters have been found in blood and urine of patients with hepatic encephalopathy. However, very large quantities of these weak neurotransmitters can be injected into the cerebra ventricles of animals with no apparent effect. A reduction o brain norepinephrine and dopamine did not induce coma; Recently, it has been shown that dopamine and nor epinephrine levels in the brains of patients dying with cirrhosis and hepatic encephalopathy are normal. Experimentally, brain dopamine and norepinephrine have beer reduced by more than 90 percent in normal rats who remained alert. Large ingestions of tryptophan may cause headache, dizziness, nystagmus, drowsiness, and dis turbances in gait-yet hepatic encephalopathy with come does not occur. Therefore, the role of weak neurotransmitters in the pathogenesis of hepatic encephalopathy remains uncertain.5 Also, changes occur in cerebral energy metabolism in those with severe encephalopathy. These changes include a fall in cerebral blood flow and cerebral oxygen consumption along with an abnormality in the handling of glucose by the brain. Again, the exact relationship of these changes for the pathogenesis of hepatic coma is not known.6

PRECIPITATING FACTORS

Ammonia, at present, appears to play a central role in the pathogenesis of hepatic coma, as has been suspected. Hepatic encephalopathy is multifactorial in origin.

Toxins (ammonia, mercaptans, and fatty acids) and endogenous metabolic derangements (hypoxia, hypovolemia, electrolyte depletion, and hypoglycemia) interact synergistically to produce neurologic alterations that are out of proportion to their individual abnormality. Accumulation of ammonia is of key importance in this synergistic hypothesis.

Many factors may tip the patient with chronic liver disease into hepatic encephalopathy and coma. Infection, gastrointestinal hemorrhage, excessive diuresis, sedatives, tranquilizers, and electrolyte imbalance all have been implicated.

Infection causes increased tissue catabolism leading to more endogenous nitrogen loads and increased ammonia production. They also may cause dehydration and prerenal azotemia. Azotemia causes an increased enterohepatic circulation of urea nitrogen with increased ammonia production.*

Gastrointestinal hemorrhage provides a substrate for increased production of ammonia and other nitrogenous toxins; 100 ml of blood releases 15 to 20 gm of protein. Bleeding also may produce hypoxia and hypovolemia that lead to compromise hepatic function. Although diuresis may lead to hypovolemia, hypokalemia, and metabolic alkalosis, potassium deficiency influences ammonia metabolism in several ways.

"Ammonia, at present, appears to play a central role in the pathogenesis of hepatic coma, as has been suspected."

Hypokalemia increases the rate of delivery of ammonia to the systemic circulation from the kidney; total renal ammonia production and delivery into both urine and renal venous blood is increased in potassium deficiency.

Hypokalemia usually is associated with metabolic alkalosis; ammonium, a weak base with a pK of 9.1, is largely ionized NH_4 + and is nondiffusable at the pH of body fluids. As the pH increases, a greater proportion is converted to ammonia (NH_3) that freely is diffusable. Extracellular alkalosis with relative intracellular acidosis favors diffusion of NH_3 from blood into cells and into the brain where it is trapped as ammonium (NH_4 +).

Sedatives, tranquilizers, and analgesics often are metabolized slowly by the damaged liver and many are bound to albumins and proteins that are decreased in liver disease. This may cause high serum levels of substances which contribute to coma by direct depressant effects on the brain.

THERAPY

Therapy for portal-systemic encephalopathy is based on a search for the correction of the previously noted precipitating factors and measures designed to reduce the levels of ammonia and other nitrogenous products.

Dietary protein intake is stopped initially and then is increased gradually in increments of 10 to 20 gm every few days. ¹¹ Patients with recurrent encephalopathic problems usually do not tolerate greater than 60 gm of protein daily. Bowel cleansing in order to reduce the ammonia concentration is done with purgatives and enemas. ¹²

Either lactulose or the nonabsorbable antibiotic neomycin, should be added to the above regimen. Both of these agents have been shown to be comparably effective in the treatment of encephalopathy as assessed in improvements in mental status, asterixis, EEG changes, and arterial ammonia levels.¹³ It has been hypothesized that neomycin might attenuate the effectiveness of lactulose by destroying bacteria in the gut that are needed for the metabolism of lactulose. There are, however, several studies which indicate a synergistic effect when the two drugs are used in combination.

Lactulose is given orally in doses of 50 to 150 ml daily in divided amounts; the total dose being adjusted to promote two to three soft stools per day with a pH of 5.5. It also can be given as an enema, 300 ml of lactulose added to 700 ml of water. When taken orally, lactulose passes unchanged to the ileum and colon where it is hydrolyzed by bacterial action to organic acids, primarily lactic and acetic acids. It may exert its beneficial effect by: reducing colonic pH, thereby, reducing the absorption of unionized ammonia and favoring the growth of weak ammonia producers; serving as a substrate for bacterial assimilation of ammonia or reducing deamination of nitrogenous compounds; and decreasing intestinal transit time available both for production and absorption of ammonia.

Neomycin is given orally in dosages of two to four gm per day or as a 1 percent solution by enemas daily or twice daily. About 1 to 3 percent of neomycin may be absorbed and nephrotoxicity and ototoxicity may become apparent. Lactulose should be chosen in the presence of renal disease or hearing difficulties. Some patients respond poorly to one agent and respond better to the other or to the combination of the two

At least 1,600 calories per day should be provided to prevent degradation of endogenous nitrogen.

Other agents that have been used in the treatment of encephalopathy include the following:

- 1. L-Dopa has been postulated to serve as a precursor of dopamine and norepinephrine causing displacement of the weak false neurotransmitters octopamine and phenylethanolamine from synaptosomes. Studies, thus far, have not been encouraging. ¹⁵
- 2. Bromocriptine is a semisynthetic ergot alkaloid and is a specific dopamine receptor agonist with a prolonged action. In a recent study, it was shown to be a highly effective method of treatment for intractable chronic (not acute) hepatic encephalopathy.
- 3. Experimentally, amino acid mixtures high in content of branched chains improve cirrhotics with hepatic encephalopathy.

SUMMARY

The clinical manifestations of hepatic encephalopathy range from minor personality changes such as irritability and changes in sleep rhythm to frank coma.

The diagnosis of portal-systemic encephalopathy usually can be based on history and physical findings. Elevated arterial ammonia levels and an EEG pattern consistent with metabolic encephalopathy are helpful adjuncts. The absolute level of ammonia does not correlate with the degree of coma; 10 percent of patients with hepatic coma have normal arterial ammonia levels.

The pathogenesis of hepatic encephalopathy still is unresolved. Substances commonly incriminated include ammonia, short-change fatty acids, mercaptans, and imbalance in blood and cerebral spinal fluid amino acid patterns. Some branched chain amino acids have been found to be decreased while aromatic and some straight chain amino acids have been found to be increased in the sera of patients in liver coma. Imbalances in amino acids may lead to an increase in false neurotransmitters which interfere with brain function and, ultimately, cause coma.

Infection, gastrointestinal hemorrhage, excessive diuresis, hypokalemia, alkalosis, and the use of sedatives all have been implicated as potential precipitating factors that may tip a patient with stable chronic liver disease into coma.

The treatment for portal-systemic encephalopathy should be based on an avid search for these precipitating factors and measures designed to reduce levels of ammonia and nitrogenous waste. Dietary intake of protein should be stopped or reduced significantly, and the bowels should be cleansed to reduce ammonia concentrations. Either lactulose or the nonabsorbable antibiotic, neomycin, should be added. Both of these drugs comparably are effective in the treatment of encephalopathy in empiric studies; the two have been shown to be synergistic when used in combination.

Bromocriptine, a specific dopamine receptor agonist, may be effective in the treatment of intractable chronic hepatic encephalopathy. It is not recommended currently for the use in acute encephalopathy. Amino acid mixtures high in content of branched chains have been shown to improve encephalopathy; however, they remain experimental at this time.

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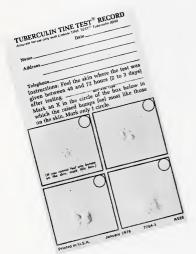
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Staphylococcal Toxic Shock Syndrome Following Herniorrhaphy in a Male

BRUCE D. FISHER, M.D., NAPHTALI A. BRITMAN, M.D., ROBERT H. NULL, M.D., Plainfield*

A case of staphylococcal toxic shock syndrome is reported in a male following herniorrhaphy. The syndrome's importance as a complication of surgery is emphasized.

n recent years a syndrome of fever, hypotension, renal failure, and peculiar skin and mucosal lesions, accompanied by involvement of multiple organ systems, has been attributed to toxins produced by *Staphylococcus aureus*. ^{1,2} The vast majority of these patients have been women using vaginal tampons concurrently with the onset of this group of symptoms, which has come to be called the staphylococcal toxic shock syndrome.³ Recently, several patients have been reported in whom the syndrome developed as a consequence of a postoperative wound infection.^{4,6} This report describes a case of toxic shock syndrome in a man following an inguinal herniorrhaphy.

CASE REPORT

The patient is a 35-year-old man who always had been healthy. On November 16, 1981, he underwent a right inguinal herniorrhaphy. The postoperative course was uneventful and he was discharged from the hospital the next day. On the fifth postoperative day, the second day after the removal of sutures, he developed fever, chills, and diarrhea (up to ten watery stools per day). These gastrointestinal symptoms lasted approximately four days and were accompanied by anuria and a perception of delusions, especially when trying to fall asleep. At about the same time, he also developed generalized erythema which lasted a few days. His wife, a registered nurse, observed petechial lesions on his legs. However, through all of this illness, he remained at

home. One week after the onset of the fever, the incision opened and serosanguinous material began to ooze from it. He continued to feel substantial malaise; he was seen on November 30, 1981, by his surgeon, who began treatment with oral tetracycline after a wound culture and blood studies were taken. Because of the severity of his symptoms and because of abnormal laboratory data, the patient was admitted to the hospital December 1, 1981.

On physicial examination, temperature was 100.8°F, pulse was 90 per minute, and blood pressure was 110/70. He was an alert man in no distress. The skin was free of discrete lesions. There was no significant lymphadenopathy. The throat was clear and the oral mucosa normal. The chest was resonant and clear, and the cardiac examination revealed nothing abnormal. The back was unremarkable. The abdomen showed no evidence of organomegaly. The right herniorrhaphy wound was indurated and open, with erythematous and tender edges. Serosanguinous material was draining from the wound. Examination of the extremities and nervous system revealed no abnormalities.

Urinalysis was within normal limits. The wound was cultured the day before admission and yielded *Staphylococcus aureus* and *Escherichia coli*. Additional laboratory data are given in the Table.

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TABLE Laboratory Data								
Date	Hgb	WBC	Platelets	SGPT	Alk P	BUN	Creat	Albumin
11/30	13.9	31.8	301,000	127	203	42	1.5	2.9
12/1	13.3	20.3				24		
12/2	12.0	18.9	387.000	64	124	16	1.1	2.9

Key: Hemoglobin and albumin are grams per deciliter; white blood cells thousands per cubic micron; platelets per cubic micron; serum glutamicpyruvic transaminase units per liter (range of normal up to 40); alkaline phosphatase units per liter (range of normal 25 to 85); and blood urea nitrogen and creatinine milligrams per deciliter.

Because of a history of allergy (urticaria) to penicillin, the patient was treated with clindamycin 600 mg intravenously every six hours and tobramycin adjusted appropriately to the renal function. His temperature fell to normal within one day, and he noticed a distinct improvement in his sense of well being. Debridement of necrotic material was carried out; the parenteral antibiotics were continued for a total of 7 days, followed by 3 days of oral clindamycin in a dose of 150 mg four times daily. On about the fifth hospital day, 16 days after the onset of fever, peeling of the palmar surfaces of the thumbs was noted. This was followed within the next 3 days by generalized desquamation of the skin of both hands and, to a lesser extent, of knees and feet.

COMMENT

The constellation and progression of symptoms and signs in this patient leave no doubt that he had staphylococcal toxic shock syndrome. Hypotension never was documented, but the sequence of fever, erythroderma, and desquamation is characteristic, and was followed by involvement of gastrointestinal, renal, hepatic, and central nervous system manifestations. Moreover, when the Staphylococcus aureus isolated from his wound was tested for exotoxin, it was found to produce enterotoxin B, a protein exotoxin associated with 10 percent of cases of toxic shock syndrome.² It is notable that, as with other cases of postsurgical toxic shock syndrome, frankly purulent drainage was not present in the wound before the onset of symptoms.^{5,6}

Fortunately, this patient survived the most severe phase of his illness. Treatment was undertaken to avert relapse, as a mortality rate of 10 to 15 percent is described in large series.^{3,7}

CONCLUSION

We believe, as do other authors, that the toxic shock syndrome must be recognized as a potentially serious complication of even the least infection-prone surgery. It is hoped that this case report will heighten awareness of this syndrome among practitioners.

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The authors gratefully acknowledge the assistance of Leon G. Smith, M.D., in obtaining the toxin assay.

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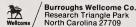


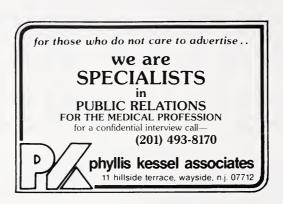
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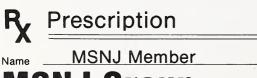
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CLINICAL NOTE

Deviation from Standard Care— Subacute Endocarditis

LEON G. SMITH, M.D., Newark*

n medical liability cases "deviation from standard care" is the key phrase used most often in the courtroom; yet, this phrase never is used in medical schools and the destiny of many physicians often is determined by a lack of understanding of the meaning of these words.

To illustrate, let us review subacute endocarditis and its implied standard of care. First of all, everyone suspected of subacute endocarditis requires an intensive attempt to establish a microbiological diagnosis. Most patients with infective endocarditis usually are ill for weeks to months; therefore, the expediency of initiating antimicrobial therapy is not a major factor. Failure to identify the specific pathogen may result in untold complications and prolonged hospitalization and costs. On the other hand, acute fulminant endocarditis cases require three sets of cultures at five-minute intervals and immediate therapy based on a presumptive pathogen directed against *S. aureus* and perhaps other pathogens, depending on the situation.

The standard of care requires innumerable aerobic and anaerobic cultures for subacute endocarditis and not six cultures as suggested previously in the old literature. Only on rare occasions will subacute endocarditis require therapy without a definite pathogen. In such situations, L form and other special media cultures and serology, as well as an infectious disease consultant, are suggested as standard care.

Once the culture is obtained, it becomes standard care to perform minimal inhibitory concentration and serum bacteriacidal dilutions level on the pathogens to determine the relative chance of bacterial elimination. A serum antibiotic bacteriacidal level of 1:8 against the specific organism is considered satisfactory. The antibiotics can be adjusted

accordingly. Blood isolates should not be discarded for two months after therapy has been completed to provide additional retesting in relapse or failure cases.

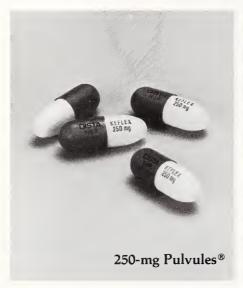
In consultation, a cardiac surgeon must be involved early if the aortic valve is involved, to ensure corrective surgery for acute heart failure. This also is true for repeated emboli or large vegetations as seen on echocardiography.

All antibiotics should be administered parenterally to guarantee absorption. Repeated negative blood cultures during therapy and afterwards allow evaluation of the treatment's effectiveness. Needless to say, a daily examination is mandatory to detect complications and provide immediate corrective action. A thorough search for the portal of entry is extremely important. Often, the bacterial species can provide same. For example, alpha streptococcus arises from the mouth; whereas, Streptococcus bovis is associated with a bowel lesion, especially a malignancy. Therefore, a dental and colon evaluation is required, respectively. Teaching a patient prophylaxis to prevent recurrence should be documented in the chart. Do not compromise with the patient on the duration of therapy. Alpha streptococcus requires three weeks of treatment, and S. aureus and enterococcus require six weeks of treatment.

I hope this essay will stimulate others to delineate what the courts expect of doctors for given illnesses. Such standards of care change so rapidly that it is imperative that doctors review, from time to time, the literature on the latest standards.

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PEDIATRIC BRIEFS

Selected Abstracts with Comments*

Relman AS: Marijuana and health. N Engl J Med 306:603,

Marijuana impairs short-term memory and slows learning; it may exacerbate preexisting mental illness; long-term heavy use may be associated with an "amotivational syndrome" (cause or effect?). A recent report (Marijuana and Health by the Institute of Medicine) concludes that it "cannot be exonerated as harmless but neither can it be convicted of being as dangerous as some have claimed." There is much reason to worry but not enough hard data to estimate accurately the degree of risk. We, therefore, have to do the best we can with the data. Prudence and common sense dictate that marijuana's nontherapeutic use be discouraged.

Weindruch R, et al.: Dietary restriction in mice beginning at one year of age: Effect on life span and spontaneous cancer incidence. *Science* 215:1415, 1982.

Mice in "middle age" were given "undernutrition without malnutrition" (intakes of essential nutrients adequate, total calories restricted to below usual minimum) and compared to controls. Mean and maximum longevity were increased in the undernourished group and spontaneous cancer incidence was reduced.

Comment: Is thin better for humans, too? The data appear to converge on this and are very suggestive of a positive answer.

Kaplan J: Type specific antibodies in children with sickle cell anemia (SCA) given polyvalent pneumococcal vaccine (PV). J Pediatr 100:404, 1982.

Antibodies were determined in SCA given PV. Protective titers were absent to pneumococcus 6A and 19F in the majority of SCA. The authors speculate that a booster might be valuable and in children (in contrast to adults) booster PV usually is unassociated with marked local reactions. "We conclude . . . that it is important not to be lulled into a false sense of security that one immunization completely protects; whether booster vaccination can fill these gaps is the subject of current investigation. In the meantime, prudence demands that immunized patients still should be watched carefully for early signs of pneumococcal infection and should be treated swiftly."

Buick RG, et al.: Computer analysis of micturating cystourethrograms in children. *J Pediatr Surg* 17:48, 1982.

A computer analysis of the radiology reports the 1,806 children who had a micturating cystourethrogram (MCU) suggests that both an intravenous pyelogram (IVP) and an MCU are necessary for complete preliminary investigation in patients suspected of having primary vesicoureteric reflux. A significant number of children who had a normal initial IVP

had reflux on the first MCU (16 percent) especially in the younger age group. Patients who had a normal initial IVP and no reflux on the first MCU did not have a significant increase in the degree of reflux on a subsequent MCU. These children may be managed confidently without repeated MCU.

Comment: Vesicoureteral reflux continues to be a controversial subject. I agree that an IVP and MCU should be part of the workup for patients suspected of having vesicoureteric reflux. The relatively high incidence of reflux in patients who had a normal IVP should be emphasized. This, also, applies to other problems, especially cystitis. The etiology of reflux remains controversial but the data presented by Buick et al. help strengthen the concept of an anatomic cause, rather than some other cause, such as infection or obstruction. (J. Marquis, M.D., Clinical Professor, Pediatric Radiology)

Welch NM, et al.: The value of the preschool examination in screening for health problems. *J Pediatr* 100:232, 1982.

This article should provoke pediatricians and pediatrictraining programs to reexamine their practices to determine why a screening program staffed by trained volunteers and public health nurses significantly was more effective than pediatricians and other physicians in identifying abnormalities in vision, hearing, blood pressure, and dental caries.

Over 1,150 kindergarten pupils were required for enrollment to have a preschool examination form completed by a licensed physician which included testing for height, weight, vision, hearing, blood pressure, and dental caries. After enrollment, the same children participated in a screening program covering the same areas. This was performed by trained volunteers and public health nurses.

The results of the school screening program and the preschool examination were compared. The compared tests revealed 448 abnormalities. Physicians detected only 136 of the 448 abnormalities and the school screening program by volunteers and public health nurses detected 408 of the 448 abnormalities. All abnormalities were verified!

^{*}Abstracts are from the Department of Pediatrics Newsletter UMDNJ-New Jersey Medical School, Vol. 7, No. 5, 1982. Selections are made by Richard J. Rapkin, M.D., Vice Chairman and Professor, Department of Pediatrics, UMDNJ-New Jersey Medical School, and Medical Director of Children's Hospital, Newark, who is Editor; and by Coeditors, Franklin C. Behrle, M.D., Professor and Chairman, Department of Pediatrics, UMDNJ-New Jersey Medical School, and Shyan C. Sun, M.D., Associate Professor, Department of Pediatrics, UMDNJ-New Jersey Medical School, and Director of Neonatology, Children's Hospital, Newark. Correspondence may be addressed to Dr. Rapkin, Children's Hospital of New Jersey, 15 South 9 Street, Newark, NJ 07107.

The school screening program significantly was more effective than the physician's preschool examination in detecting abnormalities of vision, hearing, blood pressure, and the presence of dental caries. Examinations were performed by pediatricians, other physicians, and by health department physicians. Pediatricians performed 812 examinations, other physicians performed 127 examinations, and health department physicians performed 119 examinations. Physicians failed to detect 312 abnormalities. Pediatricians, who performed 60 percent of the examinations, detected only 27 percent of the abnormalities found.

Dr. David Silber commented editorially: "In the face of documented shortcomings, questionable cost effectiveness, and an undercurrent of negative sentiment, one wonders why the preschool examination still is with us. It seems appropriate to question whether there now are enough chinks in the armor to suggest that it is time to try new, more efficient, more convenient, and less costly approaches."

In my opinion, we need to look at what we do in our offices and what we are training students and residents to do when it may be less expensive and more effective to have certain screening examinations done by paraprofessionals, saving the time of trained professionals for more sophisticated tasks. (J. Alexander, M.D., Clinical Associate Professor, Pediatrics)

Kleinman CS, et al.: Fetal echocardiography for evaluation of in utero congestive heart failure. A technique for study of nonimmune fetal hydrops. *N Engl J Med* 306:568, 1982.

In the article, 13 consecutively-referred cases of nonimmune fetal hydrops were evaluated by B-mode scanning and two-dimensional and M-mode echocardiography. Out of 13 cases, 10 cases had cardiovascular abnormalities resulting in heart failure and 3 cases had noncardiac causes of hydrops: 1) chromosomal anomaly, hypoplastic lungs, diaphragmatic hernia, and bilateral hydroureter; 2) mass impinging on the mediastinum, hypoplastic lungs, and sequestration of the upper lobe of the left lung; and 3) cystic adenomatoid malformation of right lung. Out of 10 cardiac problems, there were 3 arrhythmias, each with a normal heart, and 7 cardiac structural anomalies. The multiple ultrasonic approach resulted in diagnostic information in all cases and allowed treatment in utero (transplacental digoxin) or ex utero (cardioversion in the delivery room) in 2 out of the 3 cases of arrhythmias. In the third case, premature delivery at 34 weeks was decided because of the high degree of AV block (5:1) but the child was stillborn. The authors, therefore, advocate the use of fetal echocardiography as an adjunct to the obstetrical ultrasound examination in evaluating the fetus with nonimmune hydrops.

Comment: This study brings up a few important points: the use of fetal echocardiography probably will decrease the number of nonimmune hydrops previously classified as idiopathic; it enables prompt therapeutc intervention in cases of fetal arrhythmia; and congenital heart disease might be a much more common occurrence as a cause for nonimmune hydrops than previously thought.

This article also reminds us that polyhydramnios is a common presenting symptom of hydrops, but an irregular fetal heart beat can be the only symptom in a pregnancy with nonimmune hydrops and no polyhydramnios. So let's listen to our fetuses!

Berry HK, et al.: Diagnosis of phenylketonuria (PKU). Am J Dis Child 136:111, 1982.

Phenylalanine hydroxylase (PH) assay was carried out on needle liver biopsy specimens in 10 PKU patients and 2 parents by Berry and her associates. All patients met the accepted criteria to be classic PKU based on an initial serum phenylalanine level of over 20 mg percent and peak serum phenylalanine levels over 21 mg percent on a three-day challenge of phenylalanine (180 mg/kg/day). The values for liver PH activity in 10 control children were comparable to that of another 49 adults and 31 children from various studies. No enzyme activity was detected in 6 of the 10 PKU children studied. Residual PH activities ranging from 9 to 24 percent of control values were detected in 4 patients. Two of the parents, obligate heterozygotes, had 27 percent and 42 percent of PH activity found in control subjects. The authors argue that a firm diagnosis of PH deficiency by liver biopsy in PKU patients is necessary in order to effectively plan longterm treatment for these patients.

Comment: This study adds to the evidence that there are children being treated for classic PKU who do not have the disease. However, it should be noted that the hydroxylase reaction is not a simple enzyme assay and only the results of such studies from a few established medical centers can be relied upon. (L. Shih, M.D., Assistant Professor, Genetics)

Strafford MA, et al.: Coarctation of aorta: A study in delayed detection. *Pediatr* 69:159, 1982

Sixty-five consecutive patients with uncomplicated coarctation of the aorta diagnosed after one year of age from 1969 through 1978 were reviewed at Columbia-Presbyterian Medical Center, New York City. Ages of referral ranged from 1 to 36 years, but diagnoses at referral were made in only 14 percent of the cases. Pediatricians referred 75 percent of the cases. Reasons for referral were heart murmur, hypertension, murmur and hypertension, or the specific diagnosis of coarctation of aorta. On examination, differential blood pressure between upper and lower extremities was noted in all patients, and 89 percent of patients had systolic hypertension in upper extremities at or greater than 95th percentile. Sixteen percent of patients had normal femoral pulses and 23 percent palpable pedal (posterior tibial and dorsalis pedis) pulses. Possibly collateral blood flow accounts for the inconsistency of lower extremity pulses. In addition to delay in diagnosis, several hypertensive patients were treated pharmacologically before coarctation of aorta was discovered. Evidence suggests that delay in repair of coarctation beyond five years of age results in greater incidence of residual hypertension and presence of degenerative cardiovascular disease in adulthood.

Comment: This article emphasizes what preventive pediatrics is all about, and it takes very little time to execute it. Palpating weak or absent femoral pulses in the first week of life or intermittently thereafter may give you the diagnosis. This should be confirmed by taking blood pressure in upper and lower extremities. By three years of age (and certainly before kindergarten upper and lower extremity blood pressure should be taken at least once. If there is no differential, upper extremity blood pressures should be taken at least annually thereafter. In our institution, uncomplicated coarctation of the aorta is operated on between three and five years of age. (M. Prystowsky, M.D., Clinical Professor, Pediatric Cardiology)

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(signed) Arthur White

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Director of Finance and Administrative Services

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DOCTORS' NOTEBOOK

Trustees' Minutes September 12, 1982

A regular meeting of the Board of Trustees was held on Sunday, September 12, 1982, at the Executive Offices in Lawrenceville. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Policy Statement on Physician-Administered Injections As a Means of Execution ... Approved the policy statement presented by President Howard D. Slobodien, M.D.; see editorial on page 889.

AMA State Presidents' Meeting on FTC Legislation ... Noted a meeting in Washington, DC, by the American Medical Association on the FTC bill on September 13 and 14, 1982.

Report of the Executive Director...
(1) MSNJ 1982 Paid Memberships...
Noted the total membership count on
August 31, 1982, is 89 less than the total
on that date in 1981; this reflects a
continuing decline in dues-paying mem-

Note: There is a high rate of recidivism among dues-deliquent members and there is a similarity in the number of dues-deliquent members and the number of members who have not complied with continuing medical education requirements.

- (2) MSNJ Financial Statements... Reviewed and accepted financial statements for June and July, 1982.
- (3) State Board of Medical Examiners vs. Strauch ... Approved the following with regard to this case:

That the Board authorize support for the appeal of this litigation in an amount not to exceed \$3,000.

Note: This case involved a physician charged with assaulting a patient. The case was dismissed with prejudice by the Administrative Law Judge. The State Board of Medical Examiners did not agree with this decision and felt it neces-

sary to conduct its own hearing, with a suspension resulting. Legal counsel advised that the case be appealed in the Appellate Division.

- (4) Medical Meetings . . .
- (a) AMA 10th Annual Conference on CME ... Approved the following recommendations:

That the Board authorize Doctor William Pomerantz, Vice-Chairman of the Committee on Medical Education, and Mr. Martin E. Johnson, Director of Public Affairs and Medical Education, to attend the AMA 10th Conference on CME in Chicago, on October 1-2, 1982.

(b) International Conference on Substance Abuse . . . Approved the following recommendation:

That the Board authorize Doctor Richard J. Corbett, Chairman of the Ad Hoc Committee on Drug and Alcohol Abuse, and Mr. Martin E. Johnson, the staff person assigned to the Committee, to attend the International Conference on Substance Abuse in San Francisco on November 17-19, 1982.

- (5) Continuing Medical Education (CME) ... Accepted suggestions for providing a mechanism for physicians to document their CME credits; suggestions will be conveyed to the Committee on Medical Education for consideration. Note: There are 236 members whose CME credits are past due.
- (6) Tel-Med Program . . . Approved the following recommendation:

That the Board confirm the appointment of Doctor Pomerantz as the Society's liaison to review the materials used in the Tel-Med program.

- (7) The 1983 Membership Directory . . . (a) Use of Degree Designation . . . Agreed to include M.D. and D.O. degree designations after names of all physicians in the Membership Directory.
- (b) Retired Physicians . . . Approved the following recommendation:

That retired physicians be listed in a separate section in the Membership Directory.

Note: The purpose of this change is to reflect more accurately manpowe statistics by having practicing physician and inactive or retired physicians lister separately.

(8) The 1982 Fall Conference ... In formed that the 1982 Fall Conference planned for the early part of November 1982, will include topics to be presented by David I. Canavan, M.D., Medica Director of the Impaired Physicians Program, and Mr. Peter Sweetland, President of the New Jersey State Medica Underwriters, Inc.

New Jersey Hospital Association . . .

(1) Nursing Programs...Supported the position of the New Jersey Hospita Association and the University of Medicine and Dentistry with regard to nursing programs. Agreed that the Department of Higher Education has juris diction for professional education programs.

Note: The State Board of Nursing i attempting to promulgate requirement for nursing programs which significantly would affect diploma schools, hospital based schools, and associate degree programs; the NJHA and UMDNJ ar opposed to this action.

Committee on Annual Meeting . . .

- (1) The 1983 Annual Meeting . . .
 (a) Meeting Schedule . . . Approved th recommendations of the Committee that the 1983 Annual Meeting closely follow the schedule of the 1982 Annual Meeting at Resorts International on April 29 1982, through May 2, 1982.
- (b) Room Accommodations ... Note that 400 sleeping rooms will be availabl at Resorts International and the Atlanti City Convention Bureau will help mak additional reservations, if needed, a comparable hotels.
- (c) JEMPAC Functions ... Approve the changes in format proposed by JEM PAC; there will be a Report to th House and a Wine and Cheese Reception.
- (d) Scientific Sessions . . . Suggested t the Section Officers and the Committe on Annual Meeting to reduce th number of scientific sessions to the idea

umber of 20—10 in the morning and 10 n the afternoon. Referred to the Scienific Section on Nuclear Medicine a request to schedule a session on the issue of medical consequences of nuclear warare

e) House of Delegates ... Agreed with Doctor Mineur that all were pleased with the physical set-up of the House of Delegates in 1982 and requested the ame arrangements for 1983.

f) Informational and Scientific Exhibits
.. Noted that invitations will be issued
o insurance companies associated with
MSNJ to present exhibits in 1983 and
hat the Student Association (who had a
'no show' in 1982) will not be included
n the informational exhibits.

g) Message Center... Agreed to invite he American Association of Medical Assistants, State of New Jersey, Inc., to 'man" the Message Center.

h) VIP Suites ... Noted that the Conention Manager will make reservations or the Board of Trustees' hospitality uite, Essex, Middlesex, and Union Jounty Medical Societies' VIP suites, and a room for a party honoring Doctor and Mrs. Kovacs after the Inaugural Jinner-Dance (to be sponsored by Unon County).

i) Daily Schedule . . . Approved the folowing recommendation:

That the proposed daily schedule for the 983 Annual Meeting be approved.

Note: The schedule is on page 936.

2) Seating of Alternate Delegates ... Received as informative the following mendment to the Bylaws, Chapter II, Section 1(e):

Each delegate may have an alternate. The lelegate or an alternate may attend the sesions of the House with full rights as long as it is wearing the proper credential badge.

- 3) The Academy of Medicine of New lersey ... Defeated a request of the Committee and voted to add the Academy's fellowship ribbon to regisrants' badges.
- 4) Executive Director of President-Elect's County... Agreed to expand the ield of participants at the meetings of he Committee on Annual Meeting to nclude those counties involving the President and the First and Second-Vice Presidents.
- 5) The 1984 Annual Meeting ... Directed that additional information be obtained from Caesars Boardwalk Re-

gency and Bally's Park Place for the 218th Annual Meeting; these hotels are holding the week of April 23-28, 1984.

A Meeting with Blue Shield of New Jersey . . .

(1) Resolution #12 (Blue Shield Regulations) ... Noted that a response from the Commissioner of Insurance has not been received.

Note: This resolution, adopted in 1979, called for a change in Blue Shield regulations to allow participating physicians to receive fees from major medical contracts in those instances where patients are eligible for service benefits and also have major medical coverage. Blue Shield conceded on one point suggesting major medical benefits be paid directly to the participating physician when service benefits are not applicable. This did not resolve the problem. In March, 1982, the Board agreed that an attempt should be made to resolve the matter by urging the Commissioner of Insurance to take action on the theory that premiums for all major medical coverage for individuals holding a basic service contract be required to reflect anticipated service benefits.

(2) Blue Shield Proposals Related to Optional PACE Programs (1983) ... Reviewed correspondence from Frank J. Laudonio, M.D., President of the Union County Medical Society, along with a response to the letter from the President of Medical-Surgical Plan of New Jersey. Directed that the Board's opinion—strongly opposing the proposal noting that it would unfairly discriminate against nonparticipating physicians and may even produce an anticompetitive effect with a potential violation of federal antitrust law—be called to the attention of the President of MSP.

Note: The Union County communication raised objection to a proposal that would discount fees to participating physicians; MSP's response advised that Blue Shield personnel met with MSNJ's Executive Committee and discussed the future development of optional contracts. No plan has been presented to the Board.

Old Business . . .

(1) Same-Day Surgery List . . . Agreed to forward to the Department of Health responses from various specialty societies on the same-day surgery list. Noted that responses to this list should be considered as guidelines by the Depart-

ment of Health. Cautioned against the adoption of any mandates in regard to this type of surgery; each particular patient, anatomical vagaries, diverse clinical conditions, symptoms, and responses must be considered separately and will require a wide range of judgmental latitude. Agreed to ask the Department of Health with the Department of Insurance to pursue the promotion of physicians' offices as the site for most ambulatory care including those surgical procedures that can be done in the physician's office.

Current State Legislation

The Council on Legislation considered a list of bills of medical import and recommended the positions indicated.

S-44 Foran-Special Education

Requires the Department of Education to provide child study teams with the capacity to evaluate hearing loss and to develop individual educational programs for children with this handicap. APPROVED.

S-1212 Bubba-Patient Rights

Would establish a bill of rights for hospital patients. The rights enumerated are essentially the developed common-law rights of patients in this state. The hospital administrator must supply written notice of these rights to all patients and post the notice in a conspicuous public place in the facility. AP-PROVED.

S-1225 Feldman—Confidentiality of Medical Claims Information

Provides that employers could not review medical claims submitted by employees on claims through the employers' coverage. It assumes that employers discourage claims in order to contain premiums. Applies to Blue Cross. APPROVED.

S-1226 Feldman—Confidentiality of Medical Claims Information

Same as S-1225 except it applies to commercial insurers. APPROVED.

S-1227 Feldman—Confidentiality of Medical Claims Information

Same as S-1225 except it applies to medical service corporations. APPROVED.

S-1232 Zane-Motor Vehicles

Requires drivers of passenger vehicles to have and utilize an approved restraint system for all children passengers under age five. ACTIVE SUPPORT (provided the bill is amended to read "all children in all vehicles").

S-1253 Feldman-Social Work

This bill would establish and license two categories of social workers and would create

a Board of Social Work Examiners in the Department of Law and Public Safety whose powers and duties, among others, would be to administer the act, examine and license candidates for the various categories of social work, and promulgate rules and regulations necessary for the effective enforcement of the act.

The two categories of licensed social work would be (1) social work specialists, who would be required to have a doctorate in social work or a master's degree from an accredited school of social work and (2) social workers who would need a baccalaureate degree from an accredited college or university social work or social welfare program.

The bill would "grandfather" in all persons currently in practice, provided they have been in practice in one of the two licensed categories for two of the last five years and apply to be licensed within 180 days from the effective date of this act. ACTIVE OPPOSITION, because there has been no demonstrative need for this type of licensure.

S-1322 Bassano-Motor Vehicles/Child Restraints

Mandates the use of child restraint systems for certain children under 4 years of age. Children between the ages of 4 and 16 must wear seat belts. ACTIVE SUPPORT (provided the bill is amended to read "all children in all vehicles").

S-1345 Russo—Motor Vehicles/Epileptiform Seizures

This bill would require any physician who examines or treats a person over 16 years who may be subject to recurrent epileptiform seizures to report the patient to the Division of Motor Vehicles. ACTION DEFERRED, pending further information from the Division of Motor Vehicles, New Jersey Neurological Association, New Jersey Chapter, American Academy of Pediatrics, New Jersey Academy of Family Physicians, American Society of Internal Medicine, and the Council on Mental Health.

S-1348 Russo—Discontinuance of Medical Treatment

Provides that any person of sound mind and 18 years old may execute a declaration directing the withholding or withdrawing of life-sustaining procedures in a terminal condition. The declaration is to be filed with an agency. (That agency is not identified in the bill.) DISAPPROVED, because this type of situation should be decided by each individual patient at the time of the event. It should not be predetermined, because of the possibility that the patient may change his/her mind in the interim.

S-1349 Dumont—Physician Assistants in Cardiovascular Surgery

Calls for the regulation and registration of physician assistants in cardiovascular surgery for the State Board of Medical Examiners. It is estimated that from 70 to 100 persons might be employed in New Jersey as a result of this proposal. ACTIVE OPPOSITION, because the need for this legislation has not been demonstrated and the duties, as set forth in the bill, are the functions of surgical nurses or licensed physicians. Also MSNJ is on record as being opposed to physicians' assistants.

S-1364 Russo—Motor Vehicles/Implied Consent

Would extend the implied consent law to include the taking of blood and urine samples for drug determinations. Refusal to permit the sampling would carry the same penalty as refusal of the breath analysis test. AP-PROVED.

S-1402 Lynch—Contact Lens Dispensing

Creates the profession of contact lens dispensing and fitting for nonphysicians and nonoptometrists. Licensure and regulation would be through the Board of Examiners of Ophthalmic Dispensers and Ophthalmic Technicians. A prescription by a licensed optometrist or physician would be required. ACTIVE OPPOSITION, to that portion of the bill referring to the fitting of contact lenses, because the Medical Society of New Jersey does not feel it would be beneficial to the health of the consumer. Contact lenses improperly used or fitted may cause irreparable damage to the cornea. The fitting of contact lenses should be done by the prescribing ophthalmologist or optometrist.

S-1413 McManimon—Local Health Planning (same as A-1504)

Creates a local and state health planning system to assume the function of the curren federal system. Hospitals will finance the local system via charges levied upon them by the Commissioner of Health. The local council shall have broad-based representation via six designated categories balanced in such fashion that no category may constitute a majority of the council. DISAPPROVED because there is no evidence that this type o health planning has achieved cost savings o produces an acceptable cost-benefit ratio.

S-1430 Bassano—Blue Cross

Prohibits Blue Cross from reporting to an employer the nature of the illness of an employee. APPROVED.

S-1431 Bassano-Blue Shield

Same as S-1430, but applied to Blue Shield APPROVED.

S-1432 Bassano—Group Health Insurance Prohibits a group health insurer from re

217th Annual Meeting April 29-May 2, 1983

Resorts International Atlantic City, New Jersey Daily Schedule

Friday, April 29, 1983

3:30 p.m.—Board of Trustees' Meeting

5:00 p.m.—Delegate Registration

7:00 p.m.—Officers' Cocktail Reception followed by Dinner

Saturday, April 30, 1983

7:30 a.m.—Delegate Registration

9:00 a.m.—House of Delegates

9:00 a.m.—Message Center, Scientific, Informational, and Insurance Exhibits Open

10:30 a.m.—House of Delegates (election)

12:00 noon—Golden Merit Award Ceremony followed by Reception

1:00 p.m.—Reference Committee Meetings

5:00 p.m.—JEMPAC Political Forum

5:45 p.m.—JEMPAC Wine and Cheese Reception

Sunday, May 1, 1983

8:00 a.m.—Registration Opens

9:00 a.m.—Message Center, Scientific, Informational, and Insurance Exhibits Open

9:00 a.m.—Scientific Sessions

12:00 noon-Luncheons

1:00 p.m.—Scientific Sessions

6:30 p.m.—Inaugural Reception followed by Inaugural Dinner

Monday, May 2, 1983

6:30 a.m.—County Society Breakfast Caucuses

8:00 a.m.—Registration Opens

9:00 a.m.—Message Center, Scientific, Informational, and Insurance Exhibits Open

9:00 a.m.-House of Delegates

12:00 noon—Message Center, Scientific, Informational, and Insurance Exhibits Close

12:00 noon-House Adjourns for Lunch

1:30 p.m.-House Reconvenes

3:00 p.m.—Board of Trustees' Meeting

orting to any employer the nature of illness of any employee. APPROVED.

3-1454 Hagedorn-Restaurants

Requires the Department of Health to prepare posters and pamphlets on choke prevenion techniques which then must be displayed prominently in restaurants. APPROVED.

5-1482 Bassano—Abortion

Requires attending physicians to advise a voman undergoing an abortion that an inesthetic is available to alleviate the consequential pain to the unborn child. The act loes not apply in case of medical emergency or when the anesthetic given to the woman vill abolish organic pain to the unborn child. **INSAPPROVED**, because this bill is unnecssary legislation.

S-1501 Bornheimer-Hypnosis

Creates the profession of "licensed hypnoechnicians." Practitioners of the healing arts are exempt from the requirements of this act. The hypnotechnician practices therareutically only upon referral from a health are practitioner. A separate board of nine reople is created. Two of the nine persons could be physicians. ACTIVE OPPOSI-TION, because this type of technique already is practiced by physicians and other licensed professionals. There is no demonstrated need for separate licensure involving this procedure.

S-1504 Bornheimer—Group Health Insurance Coverage Related to Drug Abuse Treatment

Requires Blue Cross to cover the expense of treatment for drug abuse as for any other illness. DISAPPROVED, because this bill does not distinguish between medical-psychiatric treatment and social rehabilitation programs. It does not establish limits of fiscal responsibility. As a consequence, it jeopardizes health care funds which are in short supply.

S-1505 Bornheimer—Group Health Insurance Coverage Related to Drug Abuse Treatment

Requires Group Health Insurers to cover expenses of treatment for drug abuse as for any other illness. DISAPPROVED (same as S-1504).

S-1506 Bornheimer—Medical Service Corporation Insurance Coverage Related to Drug Abuse Treatment

Requires Medical Service Plan coverage of drug abuse treatment as for any other illness or disease. DISAPPROVED (same as S-1504 and S-1505).

S-1507 Bornheimer—Individual Health Insurance Coverage/Drug Abuse Treatment

Same as \$-1504, \$-1505, and \$-1506, but involves individual contracts. DISAP-PROVED (same as \$-1504, \$-1505, and \$-1506).

S-1508 Bornheimer—HMO Coverage/Drug Abuse Treatment

Same as S-1507, but involves HMO coverage. DISAPPROVED (same as S-1507).

S-1552 Ewing—Orthomolecular Treatment

Requires individual health insurers to cover orthomolecular treatment upon the request of the insured. DISAPPROVED, because this

treatment currently is not accepted as being scientifically based and should be utilized only in carefully evaluated situations.

S-1553 Ewing-Orthomolecular Treatment

Same as S-1552 except it applies to MSP coverage. DISAPPROVED, because this treatment currently is not accepted as being scientifically based and should be utilized only in carefully evaluated situations.

S-1554 Ewing-Orthomolecular Treatment

Same as S-1552 except it applies to group contracts. DISAPPROVED, because this treatment currently is not accepted as being scientifically based and should be utilized only in carefully evaluated situations.

A-721 Gormley-Administrative Law

This bill provides that sole decisional authority in contested matters of administrative law is vested in the Administrative Law Judges. Disciplinary proceedings of the State Board of Medical Examiners would be included in this new system.

This bill is intended to correct the potential for abuse and the appearance of impropriety which exists in the present system where the adjudicating board is a party to the dispute. ACTIVE SUPPORT.

A-1061 Schwartz-Podiatry

Provides that hospitals shall afford reasonable and regular use of their facilities to podiatrists through the extension of appropriate staff privileges. NO ACTION.

A-1195 Deverin-Professional Liability

This bill would preclude children and their parents from asserting "wrongful birth" claims, ACTIVE SUPPORT.

A-1302 Herman—Public Health

This bill will delay certain height, coloring, and wording requirements for signs prohibiting smoking in public areas until September 1, 1982. (LAW c. 34 (82)). CURRENT LAW.

A-1371 Brown-Physicians

Stipulates that the failure of a physician to inform a breast cancer patient of alternate forms of treatment constitutes professional incompetence under the Medical Practice Act. ACTIVE OPPOSITION, because the authority to revoke a license predicated on this type of action already is within the discretion of the State Board of Medical Examiners. Also, specific acts of medical judgment should not be legislated, but must be developed by science, education, and standards of practice.

A-1415 Herman-Wrongful Death

This bill expressly would clarify that a wrongful death action may be maintained by any person entitled to bring such a suit notwithstanding the availability of the decedent's own cause of action at the time of his death. DISAPPROVED WITH ACTIVE OPPOSITION IF THE BILL MOVES, because this bill would unwarrantably increase the personal liability of all people in New Jersey.

A-1469 Herman—Emergency Medical Services

Expands the situations in which mobile intensive care personnel can act to allow hospital-based physician-directed nurses to

control direct voice communication. Also allows the unit personnel to act on their own when communications have failed. The Commissioner of Health is to regulate the types of activity authorized. ACTION DEFERRED, pending further information from the Committee on Emergency Medical Care.

A-1480 Ogden-Imitation Drugs

Prohibits the manufacture, possession, distribution, or sale of imitation controlled dangerous substances. Authorized health care practitioners intending a placebo effect are excepted. APPROVED.

A-1490 Wolf—Special Motor Vehicle License Plates

Provides for special plates for motor vehicles owned by licensed practical nurses or registered nurses. NO ACTION.

A-1504 Kern—Local Health Planning (same as S-1413)

Creates a local and state health planning system to assume the function of the current federal system. Hospitals will finance the local system via charges levied upon them by the Commissioner of Health. The local council shall have broad-based representation via six designated categories balanced in such a fashion that no category may constitute a majority of the council. DISAPPROVED, because there is no evidence that this type of health planning has achieved cost savings or produces an acceptable cost-benefit ratio.

A-1523 Paterniti—Treatment of Alcoholism and Drug Abuse

Requires group health insurers to include drug abuse treatment in all policies which are subject to rate revision. DISAPPROVED, because this bill does not distinguish between medical-psychiatric treatment and social rehabilitation programs. It does not establish limits of fiscal responsibility. As a consequence, it jeopardizes health care funds which are in short supply.

A-1524 Paterniti-Drug Abuse

Same as A-1523, but is applicable to nongroup contracts. DISAPPROVED (same as A-1523).

A-1525 Paterniti-Drug Abuse

Same as A-1523 and A-1524, but is applicable to Hospital Service Corporations. DISAPPROVED (same as A-1523 and A-1524).

A-1526 Paterniti-Drug Abuse

Same as A-1523, A-1524, and A-1525, but applies to medical service plan contracts. DISAPPROVED (same as A-1523, A-1524, and A-1525.

A-1529 Doyle—Medical and Surgical Consent Establishes a priority of medical consent which, for the most part, closely parallels the existing common-law. APPROVED.

A-1582 Bennett-CPR

Requires CPR training for high school students. Exemptions would be granted on the basis of violation of religious beliefs. CONDITIONAL APPROVAL, pending the inclusion of periodic updating of the techniques of CPR.

A-1594 Doyle-Renal Dialysis

Would require Blue Cross and Blue Shield to provide coverage for home and renal dialysis services, APPROVED.

ACR-112 Kavanaugh—Diagnosis Related Groups (DRG)

Creates a legislative commission to determine the cost and quality impact of the DRG system. APPROVED.

UMDNJ Notes

Stanley S. Bergen, Jr., M.D. President

Rising costs for health care and an aging population are two pressing issues that physicians will contend with during the next century, if not within the coming decade.

I am pleased to be able to report to you that the University of Medicine and Dentistry of New Jersey (UMDNJ) recently sponsored two seminars that focused on these and other very important issues.

"Broadening Access to Long-Term Care" involved a group of health care, insurance, and social service policy-makers from private and public sectors who convened for a two-day conference on home health care at our Piscataway campus. Sponsoring the conference were UMDNJ-Rutgers Medical School, four state departments, and the Home Health Agency Assembly of New Jersey, Inc., a provider.

Joining me in addressing the conference were commissioners from the sponsoring state departments: George J. Albanese, Department of Human Services; Dr. Shirley A. Mayer, Department of Health; John Murphy, Department of Insurance; and John P. Renna, Department of Community Affairs.

Also featured at the seminar was a panel discussion on public and private sector funding, moderated by Bruce Valdeck, Ph.D., Assistant Vice-President of the Robert Wood Johnson Foundation. On the panel were Anne R. Somers, Professor of Environmental and Community Medicine and Family Medicine, UMDNJ-Rutgers Medical School. who is a noted health economist: David Rabin, M.D., from the office of Senator Bill Bradley; Raymond M. Slattery, Vice-President, Group Insurance Department of Prudential Insurance Co. of America; State Senator Donald T. DiFrancesco; and Duane Minard, President of Blue Cross/Blue Shield.

The speakers were strong advocates of home health care. They pointed out that extending modern techniques of health care into the home can control costs while providing the patient maximum comfort and care. Such a system enables the physician to identify not only health problems of patients, but social ones as well. As our population ages, it is essential that physicians become specialized in treating the elderly at home for extended periods.

Another conference addressing the elderly—in addition to other pressing health issues—was "Directions for Medical Education in the Next Decade," the theme of UMDNJ-New Jersey Medical School's Biannual Academic Colloquium at the school's Newark campus.

Of the many noted physicians on the panel, Dr. L. Thompson Bowles, Dean of the George Washington University Medical School in Washington, DC, and Chairman of the Group on Medical Education for the American Association of Medical Colleges, noted that by the year 2020, one in five Americans will be 65 or older, compared to one in ten currently in that age group. Therefore, he explained, physicians will have to concentrate more on treating the elderly. He also said advancing technology will enable physicians to prolong life in critically ill patients, thereby posing additional moral and ethical questions.

Joseph Girone, a fourth-year student at UMDNJ-New Jersey Medical School and former president of the student council, presented the colloquium with "Medical Education in the 1980s: The Students' Perspective."

We are grateful to the participants who shared their knowledge and concerns with us at both of these conferences.

UMDNJ was one of 22 centers nationwide to participate in the eight-year, \$115.8-million Multiple Risk Factor Intervention Trial (MRFIT), the results of which were announced at press briefings at our Newark and Piscataway campuses. Both locations had hookups to the headquarters of the National Heart, Lung, and Blood Institute near Washington, DC, so the local press could gain the information directly.

The study—launched to determine whether a closely monitored program to reduce blood cholesterol levels, high blood pressure, and cigarette smoking could significantly lower the incidence of heart disease and heart attacks—involved 13,000 men aged 35-57 and surprisingly showed no statistically significant differences between experimental

and control groups. Several explanations have been offered, including the possibility that those at high risk altered their lifestyles themselves once the dangers of smoking and high cholesterol levels became known to them.

Norman Lasser, M.D., Ph.D., Associate Professor of Medicine, headed the study at the Newark-based medical school, in which 632 men were enrolled out of 24,000 men screened. Nicholas Wright, M.D., M.P.H., Associate Professor of Environmental and Community Medicine supervised the program at UMDNJ-Rutgers Medical School, where 20,500 men were screened and 614 men were enrolled. They can be proud of their efforts, for the findings they helped document will serve as a catalyst for future thought and future studies.

MSNJ Auxiliary

Linda B. Hirsch President

The MSNJ Auxiliary Membership Committee has been restructured. It now functions more effectively, providing assistance for county auxiliaries with membership concerns, and in the reorganization of the four disbanded counties. Regional vice-chairmen, all past state and county presidents, are assigned to counties near their homes, to facilitate closer personal contacts.

Our attempts to reorganize the auxiliaries of Cumberland, Hunterdon, Monmouth, and Morris counties have met with a variety of responses from some of the county medical societies. One county society president stated that some of the "younger physicians" on his board are opposed to an organized auxiliary. Some physicians believe that medical societies benefit from active auxiliaries. Another county president was concerned about the welfare of his county medical society and felt that was more important than the status of the auxiliary.

County auxiliaries cannot survive with active opposition from component medical societies. Auxiliaries can greatly enhance achievement of the goals and purposes of medical societies. The ways in which they may do so will vary according to the needs of the individual medical society.

New Members

The Journal would like to welcome hese new members to the Medical Sociev of New Jersey.

Atlantic County Ionathan L. Fox, M.D., Atlantic City loseph L. Sparr, M.D., Ventnor City ra M. Trocki, M.D., Northfield Fred Weber, M.D., Northfield

Bergen County Anna Grudzinsky, M.D., Midland Park Steven P. Honickman, M.D., Woodcliff

Nancy L. Margolskee, M.D., Englewood Alfred A. Steinberger, M.D., Englewood Barry J. Weissman, M.D., Hackensack

Burlington County Bishnu C. Borah, M.D., Mount Laurel Leonard Grossman, M.D., Mount Holly Lakshmi A. Hanasoge, M.D., Mount Laurel

James C. Koss, M.D., Medford Leslie H. Schwartz, M.D., Cherry Hill

Camden County John J. Bonner, M.D., Voorhees Michael C. Bravoco, M.D., Clementon Arnold D. Goldman, M.D., Camden

Robert J. Maro, Jr., M.D., Collingswood Marc I. Rothman, M.D., Camden Ronald D. Vallorani, D.O., Haddonfield

Essex County

Thomas L. Borok, M.D., Orange Thomas F. Brown, M.D., Orange Imelda A. Carin, M.D., Brooklyn, NY William C. Cham, M.D., Newark Leonida C. del Rosario-Torres, M.D.,

Jacquelyn E. Dix, M.D., Summit Nathan J. Dubinett, M.D., Belleville Carl W. Ehmann, M.D., Nutley Peter P. Karpawich, M.D., Newark Marvin F. Kraushar, M.D., Livingston Geraldine E. Mattia, M.D., Newark John J. McKeon, M.D., Newark Anca M. Nicoll, M.D., West Orange Annamaria Nucci, M.D., Cedar Grove Santiago Perez, M.D., Newark Sarwan K. Seth, M.D., Bloomfield Louis Spagnoletti, M.D., West Orange Donald M. Stavis, M.D., Belleville Stephen P. Toder, M.D., Orange Clifford W. Toliver, M.D., Orange Howard M. Wilson, M.D., Montelair

Hudson County

Mark Bankier, M.D., Jersey City Michael B. Baron, M.D., North Bergen Donald J. Cinotti, M.D., Jersey City Michael A. Ortiz, M.D., Secaucus Carlos M. Perez, M.D., West New York Jung Lim Rhee, M.D., Jersey City

Mercer County Lawrence H. Oliver, M.D., Trenton

Middlesex County Martin D. Feit, M.D., Franklin Park

Ramesh S. Ghanekar, M.D., Edison Paula S. Krauser, M.D., Avenel Noor A. Nisar, M.D., Edison Andrew Piskun, M.D., Hillsborough Robert M. Refowitz, M.D., Carteret Lois E. Shulman, M.D., North Brunswick

Monmouth County

George S. Constantinopoulos, M.D., Long Branch Steven J. Daniels, M.D., Neptune Vicente N.L. Mision, M.D., Lakewood Charles Nicholas, M.D., Neptune

Morris County

Edward A. Engle, M.D., Dover John J. Kraus, M.D., Morristown Richard A. Paul, M.D., Madison Jerry Rothenberg, M.D., Morristown Phillip R. Ziring, M.D., Morristown

Ocean County

Stephen J. Ellis, M.D., Bricktown Barbara L. Katz, M.D., Bricktown Stephen K. Katz, M.D., Bricktown John V. Prevost, M.D., Lakewood

Passaic County

Robert C. Amoruso, M.D., Fair Lawn Shahram Ayazi, M.D., Wayne Walid Baddoura, M.D., Clifton Gregory M. Fernandes, M.D., Passaic Azhagasundaram Ganesan, M.D., Clifton Jeffrey L. Gold, M.D., Clifton Stephen F. Mattel, M.D., Clifton Alexander S. Mittelman, M.D., Passaic Mayuri N. Shah, M.D., Lincoln Park Judy G. Silber, M.D., Clifton

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Forrest H. Anthony, M.D., Somerville Mohan P. Das, M.D., Manville Mark J. Lebenthal, M.D., Somerville

Union County

Joseph I. Berman, M.D., Plainfield Bruce D. Fisher, M.D., Plainfield Leon D. Hankoff, M.D., Elizabeth Mahamaya Malhotra, M.D., New Providence

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Offices of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

FAMILY MEDICINE-Jeffrey P. Tannenbaum, M.D., 3 Brookhill Dr., Schenectady, NY 12309, Boston 1977. Board certified. Group or partnership. Available.

GASTROENTEROLOGY—Muhammad A.

Nyazee, M.D., 1650 Selwyn Ave., Bronx, NY 10457. Also, general internal medicine. Board certified (IM). Solo or group practice, partnership, academic (gastroenterology). Available.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available.

William W. Mark, Jr., M.D., 2289 South Lewiston St., Aurora, CO 80013. Guadalajara (Mexico) 1975. Also, general internal medicine. Group or partnership. Available June 1983.

GENERAL PRACTICE—Samuel Saland, M.D., 125-F Galaxy, 7000 Boulevard East, Guttenberg, NJ 07093. Berne (Switzerland) 1934. Board certified (FP). Subspecialty, alcoholism (detoxification, treatment, rehabilitation). Full or part time, multispecialty group, associate, preferably in vicinity of Fort Lee or Guttenberg area. Available.

HEMATOLOGY (PEDIATRIC)—Shailesh J. Shah, M.D., 430 E. 67th St., Apt. 5-C, New York, NY 10021. Baroda (India) 1974. Special interest in pediatrics, and pediatric oncology. Group, partnership, institutional. Available July 1983.

INTERNAL MEDICINE—Steven Fischkoff, M.D., 6792 Pyramid Way, Columbia, MD 21044. Pennsylvania 1976. Subspecialty, oncology. Board certified (both). Group or partnership. Available.

Frank Gentile, M.D., 2116 Trail 2, Apt. 9-K, Burlington, NC 27215. Bologna (Italy) 1973. Subspecialty, hematology and oncology. Solo or partnership. Available.

S. Srinivas, M.D., 7859 Riverdale Rd., Apt. 103, New Carrollton, MD 20784. Gandhi (India) 1973. Subspecialty, gastroenterology. Board certified. Solo, partnership, single-specialty group. Available.

Madhusudhan T. Gupta, M.D., 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Subspecialty, cardiology. Board certified. Solo, group, partnership. Available.

Nanjappa Ravi, M.D., Prel Gardens, Apt. 1D, Orangeburg, NY 10962. India 1970. Board eligible. Solo, group, partnership, emergency room. Available.

Vinod Kanbilal Shah, 507 6th St., Brooklyn, NY 11215. MP Shah (India) 1975. Board eligible. Group, solo, partnership. Available.

Jae O. Park, M.D., 9542 W. Pickwick, Taylor, MI 48180. Chonnam (Korea) 1969. Board eligible. Hospital based or group. Available.

Curtis A. Wushensky, M.D., 3437 Fifth Ave., Apt. 506, Pittsburgh, PA 15213. University of Pittsburgh 1979. Board eligible. Salaried, hospital, locum tenes, emergency room. Available.

Ellis R. Levin, M.D., 223 Pacific St., Apt. D, Santa Monica, CA 90405. Jefferson 1975. Subspecialty, endocrinology. Board certified. Group, associate, partnership. Available

B. Sathish Chandar, M.D., 150 York St.,

Stoughton, MA 02072. Stanley (Madras, India) 1975. Board eligible. Partnership. Available.

William W. Mark, Jr., M.D., 2289 South Lewiston St., Aurora, CO 80013. Guadalajara (Mexico) 1975. Subspecialty, gastroenterology. Group or partnership. Available June 1983.

Laurence N. Sechter, M.D., 1870 Stewart Ave., New Hyde Park, NY 11040. Rome (Italy) 1977. Subspecialty, nephrology. Board eligible. Partnership, solo, group. Available July 1983.

Young J. Ko, M.D., 2927 Dorchester St., Apt. 206, Troy, MI 48084. Chonnam (Korea) 1973. Subspecialty, pulmonary medicine. Board certified (IM), board eligible (PM). Solo, group, partnership. Available July 1983.

NEPHROLOGY—Laurence N. Sechter, M.D., 1870 Stewart Ave., New Hyde Park, NY 11040. Rome (Italy) 1977. Also, general internal medicine. Board eligible. Partnership, solo, group. Available July 1983.

OBSTETRICS/GYNECOLOGY—Yvonne S. Thornton, M.D., 11319 Schuylkill Rd., Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/fetal medicine. Board certified (both). Partnership or group (single specialty), Morris or Middlesex counties preferred. Available.

Ibrahim Beruti, M.D., 1236 Napoleon St., Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified. Solo. Available.

Gary S. Rosenberg, M.D., 245-20 Grand Central Parkway, Bellerose, NY 11426. SUNY-Downstate 1977. Board eligible. Group or partnership. Available.

Richard Malafy, M.D., 8716 East Spanish Barb. Trail, Scottsdale, AZ 85258. UMDNJ 1971. Board eligible. Any type practice. Available.

Andrew R. Herzog, M.D., 310 East 23rd St., New York, NY 10010. New York Medical 1979. Board eligible. Group or partnership. Available July 1983.

ONCOLOGY/HEMATOLOGY—Shailesh J. Shah, M.D., 430 E. 67th St., Apt. 5-C, New York, NY 10021. Baroda (India) 1974. Special interest in pediatrics. Group, partnership, institutional. Available July 1983.

OPHTHALMOLOGY—Shearwood J. Mc-Clelland, M.D., 11319 Schuylkill Rd., Rockville, MD 20852. Columbia 1974. Board certified. Partnership or group. Available January 1983.

Michael Hostovsky, M.D., 4100 West 36th St., Minneapolis, MN 55416. Hadassah (Israel) 1972. Also, neuro-ophthalmology. Board eligible. Single or multispecialty group. Available.

Jasvinder Singh, M.D., 500 Central Ave., Apt. 702, Union City, NJ 07087. Lady Hardinge (India) 1970. Board eligible. Partnership, group, HMO. Available.

OTOLARYNGOLOGY—Arnold I. Charow, M.D., 6 Country Club Dr., Larchmont, NY 10538. Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.)

Richard Schiffman, M.D., 2717 East 28th St., Brooklyn, NY 11235. Tufts 1977.

Board eligible. Partnership or group. Available.

PATHOLOGY—S.A. Hadi, M.D., 50 S. Chillicothe St., South Charleston, OH 45368. Gandhi Medical (India) 1964. Board certified (PA). Group. Available.

Siamak Shokri-Tabibzadeh, M.D., Montefiore Hospital and Medical Center, 111 E. 210th St., Bronx, NY 10467. Tehran (Iran) 1977. Academic institution. Available February 1983.

Marvin N. Solomon, M.D., 3 Sutliff Ave., Vineland, NJ 08360. Berne (Switzerland) 1937. Special interest in anatomic and forensic. Board certified (PA), board eligible (forensic). Hospital staff, locum tenens. A vailable.

PEDIATRICS—B.R. Prasad Achanti, M.D., #310, 11135-83 Ave., Edmonton, Alberta, Canada 6G-2C6. Guntur Medical (India) 1975. Board eligible. Available.

Jogesh Dugal, M.D., 135-17 Coolidge Ave., Kew Gardens, NY 11435. Lady Hardinge (India) 1970. Special interest, child development. Board eligible. Group or partnership. Available.

Suraiya I. Alvi, M.D., 1234A Birch St., Fort Dix, NJ 08640. Hyderabad (India) 1960. Board eligible. Group, partnership, multispecialty group. Available.

Allan Gideon Plaut, M.D., 265-02 74th Ave., Glen Oaks, NY 11004. SUNY-Downstate 1977. Board eligible. Multispecialty group, partnership, prepaid health plan. Available.

Shailesh J. Shah, M.D., 430 E. 67th St., Apt. 5-C, New York, NY 10021. Baroda (India) 1974. Board eligible. Special interest in pediatric hematology/oncology. Group, partnership, institutional. Available July 1983.

PULMONARY DISEASES—Manoj Prakash, M.D., 16 Old Salem Court, Cherry Hill, NJ 08034. GSMC (India) 1976. Also, general internal medicine. Group, solo, hospital based. Available.

Melvin Polkow, M.D., 240-23 69th Ave., Douglaston, NY 11362. SUNY-Downstate 1977. Also general internal medicine. Board certified (IM). Group, partnership, hospital based. Available.

K.J. Shah, M.D., 44-36 Kicham St., Elmhurst, NY 11373. G.S. Medical (India) 1976. Also, general internal medicine. Board certified (IM). Group or solo (hospital based). Available.

Young J. Ko, M.D., 2927 Dorchester St., Apt. 206, Troy, MI 48084. Chonnam (Korea) 1973. Also, general internal medicine. Board certified (IM), board eligible (PM). Solo, group, partnership. Available July 1983.

RADIOLOGY—Stephen Phillip Laufgraben, M.D., 19 Poplar Ave., Wheeling, WV 26003. University of Arkansas 1973. Board certified. Single-specialty group, hospital based, private. Available.

M. T. Centanni, M.D., Box 222, Bloomfield, NJ 07003. Bologna (Italy) 1970. Board certified. Group or hospital (full time). Available. RGERY, GENERAL-Robert C. Kahn. M.D., 2516 North 4th St., Harrisburg, PA 17110. Pennsylvania 1977. Board eligible. Partnership or group. Available.

Marian Fleischer, M.D., 6603 Bonnie Ridge Dr., Baltimore, MD 21209. Milan (Italy) 1972. Also colon and rectal surgery. Group or partnership. Available.

Alan Berger, M.D., 10 Landing Lane, Apt. IP, New Brunswick, NJ 08901. Temple 1976. Also, vascular surgery. Board eligible. Group or partnership. Available. Rao S. Bhatraju, M.D., 10030 North 43rd Ave., Apt. 1066, Glendale, AZ 85302, Guntur (India) 1973. Also, vascular surgery. Board eligible. Group, partnership, solo. Available July 1983.

Mohammad Amawi, M.D., 1904 Barham St., Dodge City, KS 67801. Damascus (Syria) 1971. Board certified. Group, partnership, or multispecialty group. Available.

Larry E. Shindelman, M.D., 201 W. 89th St., New York, NY 10024. SUNY-Downstate 1977. Also, vascular surgery. Board eligible. Group or partnership. Available July 1983.

URGERY, ORTHOPEDIC-Robert P. Mantica, Box 7694 Naval Regional Medical Center, Guam, FPO San Francisco 96630, Cornell 1975, Board eligible, Group or partnership. Available July 1983.

URGERY, VASCULAR-Rao S. Bhatraju, M.D., 10030 North 43rd Ave., Apt. 1066, Glendale, AZ 85302. Guntur (India) 1973. Also, general surgery. Board eligible. Group, partnership, solo. Available July

arry E. Shindelman, M.D., 201 W. 89th St., New York, NY 10024. SUNY-Downstate 1977. Also, general surgery. Board eligible. Group or partnership. Available.

ROLOGY-Alexander M. Pagnani, M.D., 3510 Avenue H, Apt. 2-B, Brooklyn, NY 11210. Guadalajara (Mexico) 1976. Board eligible. Any type practice. Available.

Ramesh K. Chopra, M.D., 1920 S. First St., Minneapolis, MN 55454. Allahakad (India) 1967. Board eligible. Group, partnership, solo. Available.

Frederick Greenstein, M.D., 732 E. 91st St., Brooklyn, NY 11236. SUNY-Downstate 1972. Board eligible. Group, partnership, academic, solo. Available.

Tung-Hua Chieng, M.D., 190 Mineola Blvd., Apt. 4-N, Mineola, NY 11501. Taiwan 1973. Board eligible. Group, partnership, solo. Available.

H.S. Ajrawat, M.D., 70 Heritage East, Williamsville, NY 14221. Amritsar (India) 1974. Board eligible. Group, partnership, solo Available

Richard A. Chazkel, M.D., 201 East 25 St., New York, NY 10010. Hahnemann 1976. Board eligible. Group, solo, partnership.

Tiido Kallas, M.D., 714 Parsons Rd., Ridgewood, NJ 07450. NY Medical 1965. Board eligible. Group or partnership. Howard L. Frey, M.D., 10982 Roebling Ave., Apt. 425, Los Angeles, CA 90024. Johns Hopkins 1977. Board eligible. Group, partnership, solo. Available July 1983.



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Caesar's Boardwalk Regency	\$70.00	\$70.00	Rates quoted upon request
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Rates subject to 12% state and local taxes

ALL hotel reservations for the 217th Annual Meeting, MSNJ, will be handled by the Atlantic City Convention Bureau. Please send your housing application directly to the Bureau, 16 Central Pier, Atlantic City, NJ 08401. Complete your 1st, 2nd, and 3rd choices of hotel. All Delegates and Members are urged to make their hotel reservations early. Blocks of rooms will be available at Resorts International (headquarters hotel), the Claridge Hotel and Casino, and Caesar's Boardwalk Regency. The reservations deadline at all three hotels is March 29, 1983. All registrants will be charged for three nights: Friday, Saturday, and Sunday, April 29, April 30, and May 1, 1983.

MAIL THIS APPLICATION DIRECTLY TO THE ATLANTIC CITY CONVENTION BUREAU 16 Central Pier Atlantic City. NJ 08401

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Accommodations desired: \square Single \square	Twin ☐ Suite Parlor & 1 Bedroom ☐ Suite Parlor & 2 Bedrooms	
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DICAL PHILATE

Instruments

JOSEPH H. KLER, M.D., New Brunswick

OBSTETRICAL INSTRUMENTS

Obstetrics in the 17th century was characterized by the introduction of the forceps. Pierre Franco earlier had devised a three-valved speculum for the purpose of extracting the head, but it was not until the 1600s that a practical and well-shaped forceps was constructed by a member of the Chamberlen family. It was invented by Peter Chamberlen (1560-1631) and rigidly was guarded as a family secret. In 1670, Hugh Chamberlen (1664-1728) offered the secret to the most famous obstetrician of Paris, Mauriceau, for 10,000 thalers, Chamberlen succeeded in selling the family secret to various physicians in Holland. Jeam Palfyn (1650-1730) made a forceps that was modified by Heister (1683-1758). Edmond Piper of the University of Pennsylvania devised the aftercoming head forceps in version deliveries.

INSTRUMENTS FOR SKULL **FRACTURES**

Skull fractures have been a serious problem since the advent of man. Surgical treatment of skull fractures is as old as the practice of trepanation. Hippocrates wrote voluminously upon the treatment of skull fractures and advised that all depressed skull fractures should be treated gently and carefully. He advised lifting depressed fractures carefully in an effort to relieve the pressure of the fragment upon the brain. The triploiden (see stamp) was placed on the skull over the fracture and the sharp point of the 'drill' was inserted into the depressed fragment of the skull and the fragment was lifted with the aid of the built-in coil of the instrument.

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Over 6400 New Jersey physicians and surgeons have discovered that the "Doctors' Company" gives them the most protection for their money. By eliminating the insurance agent, the Exchange has also eliminated the agent's commission, and used the savings for increased coverage and lower premiums. A return of 20% of the 1977 premiums has just been distributed.

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Medical Inter-Insurance Exchange of New Jersey 2 Princess Road Lawrenceville, NJ 08648 (609) 896-2404



ETTERS TO THE EDITOR

Idolescent Pregnancy

June 28, 1982

ear Dr. Krosnick:

The rise in the pregnancy rate among dolescents has been well documented, articularly by research done at the Alan Juttmacher Institute, New York. 'eenage pregnancy, long considered an xclusively personal matter, now has ecome a national problem. This is unlerscored by the fact that an Office of tdolescent Pregnancy Programs has een established in the Federal Department of Health and Human Services.

Focusing on the pregnancies of dolescents can provide a vehicle for ooking at all related issues. Those who lave studied the increase in births to eens have learned that the reasons are aried and complex. Large numbers of eenagers can well benefit from family ife education, access to health care inormation including contraception, and ounseling. In order to make these serices more valuable to all teens, the services should include programs that levelop decision-making skills. Services should convince adolescents that they have control of their own futures and, ndeed, that there is a future for them in society. These programs are not for young women only. The obvious fact is that for every teen mother there is a father-in most cases a teenager, too.

The medical profession no doubt is aware of the statistics in New Jersey. The 1980 figures (the most recent available) from the New Jersey Department of Health-Health Data Services report 96,438 births, of which 7,827 births were to mothers 15 or under through 18 years of age, with 951 births to the 15 or under group. These live births, of course, do not give the number of pregnancies that were not carried to term.

We wish to inform the medical community about the establishment of the New Jersey Network on Adolescent Pregnancy, a state-wide network which assists and links professionals who work with adolescents who are pregnant, or who are parents, and who work to prevent pregnancies. There is a network of these agencies in every county in New Jersey. Further, we have resource books detailing these agencies for 17 of the counties in New Jersey. We would like

to encourage physicians to become a part of these networks or to use the services of affiliated agencies.

Also, the New Jersey Network for Family Life Education has been organized to assist communities in understanding the policy which has been enacted by the New Jersey State Board of Education. Many physicians are or will be serving on committees in their school districts when curricula are being developed. The Network office offers information that may be helpful to them in that capacity or in other ways.

Jointly, government, private agencies, and practicing professionals must find ways to help teenagers and their families to address their overall needs. Since death by suicides, homicides, and automobile accidents account for the large increase in death rates in adolescents, we have strong indicators that their self-worth is dwindling. The stresses of adolescence cut across all lines: racial, geographic, economic, and gender. The cries for help are loud, but the responses barely are heard.

For information about these programs, call or write to me.

(signed) Estelle R. Robinson, Director Center for Community Education Rutgers University

Nuclear Arms Freeze

July 19, 1982

Dear Dr. Krosnick:

This letter is in response to your editorial, "Nuclear Arms Freeze," in *The Journal*, July 1982.

I was pleased that MSNJ at its annual meeting in Atlantic City saw the need to confront the nuclear arms predicament. MSNJ went farther this year than the AMA went last year when it merely noted that there could be no medical response to a nuclear attack. The State Society resolved to support reduction in nuclear arms. It was an encouraging step forward.

Nevertheless, the MSNJ resolution is a disappointment. It misleads by stating that the Soviets enjoy "wide advantages" in nuclear weapons. In fact, there is no certainty as to which side has an advantage. According to different meas-

urements, each side can be said to have some advantage. In strategic nuclear might, according to Ground Zero, the Soviet Union has 7,100 megatons, the United States has 4,100 megatons. In delivery vehicles (missiles and bombers), the Soviet Union has 2,490 and the United States 2,032. But in the number of warheads, the United States has 11,000 while the Soviet Union has only 8,000. A higher proportion of our warheads are in submarines and our submarines are quieter and harder to find than the Soviet submarines. And our subtracking equipment is better than Soviet equipment so we can find their underwater ships more easily. Finally, the smaller number of industrial centers we would have to hit, especially in relation to our higher number of warheads, can be said to put the United States ahead.

And those statements refer just to strategic weapons. In theater weapons (warheads of medium and short-range missiles), NATO has 7,000 weapons compared to 4,000 weapons in the Warsaw Pact countries. The data are from the Center for Defense Information, quoted by SANE.

In reality, a "rough parity" exists between the United States and Soviet Union at the present moment. The present time, therefore, is crucial for negotiating seriously about nuclear arms reductions. The negotiations may take years. In order for the negotiations to be truly serious, both sides cannot be increasing their weapons while the negotiators talk about diminishing weapons. Further developments in new weapons will make them smaller and harder to detect, thus making any negotiated agreements more difficult to police. Because of this likelihood, there must be a freeze now on nuclear weapons development and deployment; otherwise, a verifiable treaty may soon become impossible. MSNJ was wrong to vote against the freeze.

Each time in the past we were told there was a "bomber gap" or "missile gap," it was mainly a springboard for the United States to develop even more dreadful weapons: ICBMs and MIRVs, and now the MX and Trident II. But each time we thought we had earned some safety with our new technological

strength, the Soviets matched us. We keep hoping to "negotiate from strength," scaring the Russians into submission by technological advances. But even when they had no nuclear weapons and we had them all, the Russians did not submit to us out of fear. I don't think they will in the future.

Finally, I wish to reply to the Resolution's statement that, "Any pressure exerted upon western democratic governments for nuclear disarmament is not matched by similar pressures upon the Soviet leadership." Of course, the pressures in Washington and Moscow are different; they are capitals of different kinds of government. But how do we know the pressures are not as intense there as here? Have we had war on our soil in this century? Do the Russians love life and property less than we do? And if their leaders are more insulated against public opinion than ours-who are quite insulated themselves-so what? Shall we cry, "No fair," take our marbles, and go home? We may have no home to go to if we insist that the Russians must first become like us before we will talk to them.

(signed) Reed C. Perron, M.D.

August 17, 1982

To the Editor:

I am writing to add my voice to those who categorically refute Resolution #7 adopted by the House of Delegates of the Medical Society of New Jersey at its recent annual meeting as reported in the July Transactions issue of *The Journal*.

The resolution "considers a freeze on the development and deployment of nuclear arms more likely to cause war than prevent it and counterproductive to the interest of the free world" since such a 'freeze will only legitimize wide advantages now enjoyed by the Soviet Union."

I readily admit that these statements are taken out of context. However, the statements are a distortion of the facts and fly in the face of incontrovertible evidence to the contrary. They are tendentious at the very least or mendacious at the very worst. They certainly do not reflect the sentiments of our membership.

Most responsible authorities agree that the "window of vulnerability" is an illusion, and that a rough parity exists between the United States and the Soviet Union in terms of destructive power and nuclear deterrence. George Kistiakowsky, former head of the Explosives Division of the Manhattan Project, pres-

idential advisor, and currently Emeritus Professor of Chemistry at Harvard University, most poignantly summarizes the view of those who advocate an immediate freeze on production, testing, and deployment of nuclear weapons: "If we complete negotiations in ten years, we will be lucky. By that time we will have the MX, B-1, trident subs, and cruise missiles. The likelihood of a nuclear war in the meantime will be far from negligible. We cannot wait for negotiations while the arms race goes on rampantly."

Accordingly, I urge the House of Delegates to reconsider and withdraw Resolution #7 forthwith.

(signed) Harry M. Zutz, M.D.

Physician-Administered Injections

August 13, 1982

Dear Dr. Slobodien:

As you are aware, New Jersey recently enacted a new murder statute which includes the reinstatement of the death penalty in New Jersey. Upon signing this statute, the Governor announced that he favored lethal injection as the method of execution as he believes that this method is the most humane method of execution. The Governor asked me to write to you concerning your organization's possible concerns regarding the administration of lethal injections and the possible use of doctors in the execution

While researching the various methods of execution my legal staff discovered that several American Medical Association state organizations strongly opposed the use of physicians to administer lethal injections. Of the states which presently use lethal injection as their method of execution, none use physicians to administer the lethal drug. The Governor was made aware of these issues, and of the doctors' concern about possibly violating their Hippocratic oath, prior to making his recommendation regarding the method of execution to be employed in New Jersey.

New Jersey will not use physicians to administer a lethal injection to execute a convicted murderer. The Governor is very concerned that no medical practitioner should be asked to take part in bringing about the death of a convicted murderer. He is strongly opposed to any proposal to introduce a method of execution which would require the services of a medical practitioner in carrying out

the actual process of killing. He respect the professionalism of the medical pratitioners in New Jersey, their obligation under the Hippocratic oath, and the dedication to saving the lives of the people of our state.

In other states, lethal injections at administered by intravenous injection various drugs in fatal dosage. In Okla homa, the method of execution pr scribed is a "continuous, intravenou administration of a lethal quantity of a ultra-short-acting barbiturate in conbination with a chemical paralytic ager until death is pronounced by a license physician according to accepted stand ards of medical practice." In Oklahom medical technicians administer a solu tion of a fast-acting barbiturate in steri water intravenously by hypodermic ne dle. A medical doctor is present, bu does not participate in any aspect of th execution other than to pronounce death. In other states an intravenou procedure using sterile water or a salir solution is begun by paramedics, and a executioner or a blank cartridge a rangement involving more than one per son then injects the lethal drug into th solution which results in the death of th convicted murderer. In one state, a phy sician could be used to administer either an oral or intramuscular nonleth: sedative prior to the execution if th inmate did not object. Other than th possibility of administering a nonleth sedative prior to the execution proces beginning (and this issue has not bee addressed or resolved yet), physiciar only would be used in New Jersey t pronounce the death of the inmate.

The Governor believes that death b lethal injection as a means of executio is a more humane and less spectacula form of execution than the other meth ods of execution currently used in th United States. Lethal injections are pair less, fast acting and the most human method of executing a condemned ind vidual. Texas Representative Ben Grar stated that "the death penalty should b swift and sure punishment, not some thing that takes away from the dignity of the state." Governor Kean agrees wit this view. We should not turn stat executions of convicted murderers int circuses. Executions should be swif conducted in the most humane manne possible, and the dignity of the stat must be preserved.

I hope this letter allays any concern your organization may have regardin the proposal to use lethal injections a the method of executing condemne murderers in New Jersey. The state ha n obligation to execute its condemned risoners in the most humane manner. he Governor believes death by lethal jection is that manner, and he is comitted that physicians will not be used in arrying out the actual process of execuon. I hope your organization agrees ith the Governor's philosophy that extuitions must be carried out in the most umane manner, and now will support to Governor's proposal to employ thal injections as the method of execuon in New Jersey.

(signed) W. Cary Edwards Chief Counsel, State of New Jersey

amilies of Physicians

August 27, 1982 Dear Doctor Krosnick:

Since assuming the office of President of the Society for the Relief of Families of Physicians of New Jersey, I have onsidered which is the more efficient—short monthly note or a longer article t less frequent intervals, and I have oncluded with other salespeople that he frequent exposure is better.

Now for this month's message. At a ecent meeting with auxiliary members, I vas asked for letters of recommendation egarding our usefulness. This is so far field. We work privately. No reports. No publicity. No bragging. If you trust he officers, we will do our best to serve ou. If you need letters from satisfied isers, you remind me of the inquiry about the cost of operating a yacht. The inswer is, "If you need to ask, you annot afford to have one." More next nonth.

Joseph R. Jehl, M.D.

Medical Assistants

August 21, 1982

Dear Editor:

Kudos to Dr. Kovacs for his recent article on medical assistants (August). I could not agree more. Those of us who

have supported the American Association of Medical Assistants over the years have only positive feelings about its aims, accomplishments, and professionalism.

(signed) Edgar G. Braunstein, M.D.
Physician Advisor
AAMA New Jersey State Society

August 28, 1982

Dear Doctor Kovacs:

We have read your recent article entitled "Who's Afraid of the Big, Bad Medical Assistant?" in *The Journal* of the Medical Society of New Jersey and, as past presidents of the American Association of Medical Assistants, State of New Jersey, Inc., would like to thank you for your support of our organization as expressed in this article.

We feel quite confident that after reading this article, many physicians will be encouraged to learn more about us and our activities.

Thank you again. It was very gratifying.

(signed) Marie Andreozzi CMA-AC, Chairman Past Presidents' Committee

August 31, 1982

Dear Doctor Krosnick:

I would like to take this opportunity to congratulate and thank Dr. Kovacs, President-Elect of the Medical Society of New Jersey, for his bold and sincere article in *The Journal* (August, 1982) of the Medical Society of New Jersey, referring to our efficient, dedicated, and loyal medical assistants. It is a good feeling to know we have another friend in the present administration.

The following is not intended for physicians, such as Dr. Kovacs, who are well informed and aware of the qualities of our medical assistants, but for the physicians who either for lack of knowledge or misinformation do not recognize the effective value of having a medical assistant in the office.

The American Association of Medical Assistants (AAMA) is a professional association of medical assistants, secretaries, nurses, technicians, bookkeepers, and receptionists in the physician's office or other medical facility; the association is designed to offer medical assistants guidance in the various phases of their jobs. AAMA is a nonprofit organization and it is not nor shall it ever become a trade union or collective bargaining agent.

On a day-to-day basis our medical assistants not only are indispensable in their roles as our right arm in our office, but are equally vital to us as our ambassadors in representing us to the American people. Further, through their professional association, they play an essential role in interpreting and promoting the medical profession to the American people.

The American Association of Medical Assistants (AAMA) bears a very special and unique relationship to the American Medical Association (AMA). Guided by virtually identical principles of ethics and structured in the same fashion as the AMA, the AAMA forever has been loyal to medicine and is dedicated to constantly improving our public relations and our mutual professionalism. This, of course, is in addition to perpetually complementing our efforts to continue to provide the very best medical care in the world.

The AAMA is to be congratulated for its outstanding certification program, with certification board of examinations administered by the National Board of Medical Examiners that rival in excellence any of our own specialty boards.

Mindful of the importance of continued education and maintaining competency, the AAMA deserves further congratulations for its excellent education programs administered by its Continuing Education Board.

These are a few reasons why more physicians should encourage their medical assistants to become active members and partake of the continuing education programs that are provided.

I commend the AAMA and recognize it as one of the finest organizations in the country today.

(signed) Giovanni Lima, M.D. MSNJ Liaison to Medical Assistants AAMA, New Jersey

Because We Care Part I and Part II

DECEMBER 2 AND 8, 1982

Sponsored by the NJHA Council on Professional Practice's Child Abuse Task Force Cosponsored by the Medical Society of New Jersey

> At the Center for Health Affairs 746-760 Alexander Road CN-1 Princeton, NJ 08540-0706 (609) 452-9280

Part 1 December 2, 1982		2:00-2:30 pm	INTERAGENCY RELATIONSHIPS Richard Sheola Accountability
8:30-9:00 am	REGISTRATION		Problems Builiding Blocks
9:00-9:15 am	OPENING REMARKS Joseph Lindner, M.D. Betty Lou Miccio	2:30-3:00 pm	HOSPITAL LIAISON IN ACTION Colleen Mitchell
9:15-10:15 am	CHILD ABUSE LAW AND REGULATION IN PRACTICE	3:00-3:30 pm	SUMMATION
	Mary Lou Foote	Part 2	
	Reporting required by law	December 8, 1982	
	contents of record	8:30-9:00 am	REGISTRATION
	Immunity provisions in law illustrations Protocols information release	9:00-9:15 am	OPENING REMARKS Betty Lou Miccio
		9:15-9:30 am	IDENTIFICATION: "Lift a Finger" —slide presentation
	medical record contents photographs	9:30-10:30 am	WHAT CONSTITUTES CHILD ABUSE
10:15-10:30 am	BREAK		Anna A. Haroutunian, M.D. Ray E. Helfer, M.D.
10:30–12:00 noon	SYSTEMS PROBLEMS Glenn Lambert, M.D.	10:30-10:45 am	BREAK
noon	Indication for protective custody Uncooperative parents	10:45–12:00 noon	CLINICAL MANAGEMENT Ray E. Helfer, M.D. Norman Magid, M.D.
	Reluctant professionals	12:00-1:00 pm	LUNCH
12:00–1:00 pm	Anna A. Haroutunian, M.D. LUNCH	1:00-2:30 pm	FAMILY MANAGEMENT Anna A. Haroutunian, M.D.
1:00-2:00 pm	CONSENTS		Robert A. Lowenstein, M.D.
	DYFS Hospital	2:30-3:00 pm	WHERE DO WE GO FROM HERE
	James B. Boskey, Esq.		Glenn Lambert, M.D. Michael Schatzki

Enrollment Information: The enrollment fee is \$40.00 per person per session or \$70.00 per person for both sessions and includes coffee breaks, luncheons, and hand-out materials. No refunds after November 24, 1982. Registrants who fail to attend without notifying HRET must pay the entire fee. To register or for further information, contact Helen L. DiLemme at (609) 452-9280, ext. 283.

his listing is compiled through the cooperation the Committee on Medical Education of the ledical Society of New Jersey, The Academy Medicine of New Jersey, the New Jersey hapter of the American Academy of Family hysicians, and the Office of Continuing Medid Education of the University of Medicine nd Dentistry. For information on accreditaon, please contact the sponsoring organizaon(s), indicated by italics-last line of each em.

ARDIOLOGY

ec.

- Practical Measures in Rehabilitating the Cardiac Patient
 - 5-6:30 p.m.—Somerset Medical Center, Somerville (Somerset Medical Center and AMNJ)
- Update of Congestive Heart Failure
- 1-2:30 p.m.-Christ Hospital, Jersey City (Christ Hospital and AMNJ)
- Treatment of Cardiogenic Shock 8-10 a.m.-Newcomb Hospital,
- (Newcomb Hospital) **Newer Cardiac Drugs**
- 11 a.m.-Greystone Park Psychiatric Hospital (AMNJ)
- Indications for Invasive Studies in Cardiology 12 noon-St. Mary's Hospital, Orange (AMNJ)

4EDICINE

)ec.

- 1 Diabetes 10:30 a.m.-St. Mary's Hospital, Passaic (AMNJ)
- Immunology (Clinical) 11:30 a.m.—Columbus Hospital, Newark (AMNJ)
- Medical Grand Rounds 11:30 a.m.-VA Medical Center, East

(Endocrinology Section of AMNJ)

- 1 Hyperthyroidism Update 1-2:30 p.m.-VA Medical Center, Lyons Bldg. 93 (VA Medical Center and AMNJ)
- 1 Dinner Meeting 6-9:30 p.m.-Holiday Inn, East Orange (Endocrinology Section of AMNJ)
- Renal Conferences in Nephrology 15 4-5 p.m.—UMDNJ-University Hospital, Newark
 - (Nephrology Society of NJ and Nephrology Section of AMNJ)
- Current Concepts of Insulin Secretion and Action
- **Nutrition in the Cancer Patient**
- Recent Advances in Diagnosis and Treatment of Thromboembolic Disease

- 9-11 a.m.-Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and
- AMNJ)Contemporary Management of Thyroid
- Nodules Beta-Blockers as Followup to Acute Myocardial Infarct
- To be announced
- To be announced
- 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNJ)
- **Endocrine Conferences**
- 3:30-5 p.m.-Rotates between 15
- Newark Beth Israel Medical Center, 22 UMDNJ-University Hospital, United
- Hospitals, Newark, and VA Medical Center, East Orange (Endocrinology Section of AMNJ)
- Dysfunctional Uterine Bleeding in Adolescence 9 a.m.-Freehold Area Hospital (AMNJ)
- 2 Medical Grand Rounds 9:30 a.m.—Newark Beth Israel Medical Center
 - (Endocrinology Section of AMNJ)
- 2 Bacterial Pneumonias Zollinger-Ellison Syndrome and Other Gastric Hypersecretory Disorders 11 a.m.-12:30 p.m.-St. Joseph's Hospital and Medical Center, Paterson (St. Joseph's Hospital and AMNJ)
- Medical Grand Rounds 11:30 a.m,-UMDNJ-University Hospital, Newark (Endocrinology Section of AMNJ)
- **CDS Prescribing Practices** 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)
- 7 CDS Prescribing Practices 1-2:30 p.m.—Christ Hospital, Jersey City (AMNJ)
- 8 Clinical Topics in Emergency Medicine 9 a.m.-4 p.m.-Medical Society of New Jersey, Lawrenceville (NJ Chapter of American College of Emergency Physicians and AMNJ)
- **ENT Problems Confronting the Daily** Practice of Primary Care Medicine 9:30-11:30 a.m.-Riverside Hospital, Boonton (Riverside, St. Clare's, and Dover General Hospitals and AMNJ)
- Management of C.O.P.D. 1-2:30 p.m.—VA Medical Center, Lyons (VA Medical Center and AMNJ)
- The Recalcitrant Asthmatic 6-7 p.m.—Schering Labs, Kenilworth (NJ Allergy Society and AMNJ)
- 9 New Concepts in the Management of

Back Pain

8-9 p.m.-Rancocas Valley Hospital, Willingboro (Burlington County Medical Society and AMNJI

- 10 CDS Prescribing Practices 12 noon-1 p.m.-Freehold Area Hospital (AMNJ)
- 13 Arthritis in the '80s 8-9:30 a.m.-Wallkill Valley General Hospital, Sussex (Wallkill Valley General Hospital and AMNJ)
- 14 Extraarticular Manifestations of Rheumatoid Arthritis 12:15-1:15 p.m.-J.F. Kennedy Memorial Hospital, Stratford (UMDNJ-NJ School of Osteopathic Medicine, J.F. Kennedy Memorial Hospital, and AMNJ)
- 15 Laboratory Interpretations 10:30 a.m.-South Bergen Hospital, Hasbrouck Heights (AMNJ)
- 15 Indications for Endoscopic Retrograde Cholangiopancreatography 1-2 p.m.—West Hudson Hospital, Kearny

(West Hudson Hospital and AMNJ)

21 Lead Nephropathy 4-5 p.m.-Academic Health Science Center Medical Education Bldg., New Brunswick (UMDNJ-Rutgers Medical School and AMNJ)

Jan.

- 5 Immunization for Hepatitis 9:30-11 a.m.—Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and
- AMNJ) Thromboembolism and Thrombolytic Therapy 11:30 a.m.-Columbus Hospital, Newark
- (AMNJ) 5 'Medical Grand Rounds 11:30 a.m.-VA Medical Center, East Orange
- (Endocrinology Section of AMNJ) 5 CDS Prescribing Practices 1-2:30 p.m.—Christ Hospital, Jersey City (AMNJ)
- 5 Dinner Meeting 6-9:30 p.m.-Holiday Inn, East Orange (Endocrinology Section of AMNJ)
- **Pulmonary Hypertension**
- 19 **Update on Calcium Blockers**
- Fat Metabolism
 - 9-11 a.m.-Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJ)

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For Information Call:

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NO REGISTRATION FEE—2½ Hours C.M.E.—Auditorium—St. Michael's Medical Center 268 High Street—Newark, New Jersey 07102

- 5 Endocrine Conferences
- 2 3:30-5 p.m.—Rotates between
- 9 Newark Beth Israel Medical Center 66 College Hospital, United Hospitals Medical Center, Newark, VA Medical Center, East Orange

(Endocrinology Section of AMNJ)
Medical Grand Rounds

9:30 a.m.—Newark Beth Israel Medical Center (Endocrinology Section of AMNJ)

Urinary Tract Infections

Diuretic Therapy-Hypertension
11 a.m.-12:30 p.m.—St. Joseph's
Hospital and Medical Center, Paterson
(St. Joseph's Hospital and AMNJ)

Medical Grand Rounds 11:30 a.m.—University Hospital, Newark

(Endocrinology Section of AMNJ)

7 Renal Conferences in Nephrology

21 4-5 p.m.—University Hospital, Newark

Rm. H-349 (Nephrology Society of NJ and Nephrology Section of AMNJ)

11 Emergency Care
11 a.m.—Greystone Park Psychiatric
Hospital
(AMNJ)

12 Infectious Disease 1-2:30 p.m.—Christ Hospital, Jersey City

(Christ Hospital and AMNJ)
Proper Use of Blood Transfusion Therapy

9 Thromboembolism and Thrombolytic Therapy 11:30 a.m.-12:30 p.m.—Rahway Hospital

(AMNJ)

12 Total Parenteral Nutrition: State of the
Art 1983

6.6 Advances in Blood Component Therapy 9:30-11:30 a.m.—Riverside Hospital, Boonton (Riverside, St. Clare's, and Dover General Hospitals and AMNJ)

Name

13 Indications for Invasion Studies— Cardiology 2 p.m.—John E. Runnells Hospital of Union County, Berkeley Heights (AMN)

14 Osteoarthritis 12:15-1:15 p.m.—J.F. Kennedy Memorial Hospital, Stratford (UMDNJ-NJ School of Osteopathic Medicine, J.F. Kennedy Memorial Hospital, and AMNJ)

18 Newer Agents in Treating Arthritis 12 noon—St. Mary's Hospital, Orange (AMNJ)

18 Clinical Disorders of Hyperkalemia 4-5 p.m.—Academic Health Science Center Medical Education Bldg., New Brunswick (UMDNJ-Rutgers Medical School and AMNJ)

19 Dermatological Conferences 6-9 p.m.—Rutgers Community Health Plan, 57 U.S. Hwy. 1, New Brunswick (UMDNJ-Rutgers Medical School Div. of Dermatology and AMNJ)

9 Drug-Induced Liver Disease 1-2 p.m.—West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ)

22 Metabolic Bone Disease 8-10 a.m.—Newcomb Hospital, Vineland

(Newcomb Hospital)

25 Thyroid Diseases
11 a.m.—Greystone Park Psychiatric

NEUROLOGY/PSYCHIATRY

Dec.

1 Adolescent Suicide

Hospital

(AMNJ)

1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)

1 Ongoing Child Psychiatry Case

8 Conference

- 15 10 a.m.-12 noon-Trenton Psychiatric
- 22 Hospital
- 27 (Trenton Psychiatric Hospital and AMNJ)
- 2 Incest: Clinical and Treatment Issues 9 The Chronic Patient
- 12 noon-1 p.m.—Carrier Foundation, Belle Mead (Carrier Foundation and AMNJ) 3 Psychiatric Lecture Series
- 1:30-5:30 p.m.—Trenton Psychiatric Hospital (Trenton Psychiatric Hospital and AMNJ)
- 4 Positron Emission Tomography 8-10 a.m.—Newcomb Hospital, Vineland (Newcomb Hospital)

6 School Phobia in a School Teacher 8:15-10:30 p.m.—192 Chittendon Rd., Clifton (Essex Psychiatric Seminar and AMNJ)

- 6 Psychiatric Case Conference
- 7:30-11:30 a.m.—Trenton PsychiatricHospital
- 27 (Trenton Psychiatric Hospital and AMNJ)
- 14 Recent Advances in Psychiatry 2 p.m.—Ancora Psychiatric Hospital, Hammonton (AMNJ)

Jan.

- 3 Psychiatric Case Conferences
- 10 7:30-11:30 a.m.—Trenton Psychiatric
- 17 Hospital
- 24 (Trenton Psychiatric Hospital and
- 31 *AMNJ*)
- 5 Ongoing Child Psychiatry Case Conference
- 12 10 a.m.-12 noon—Trenton Psychiatric
- 19 Hospital
- (Trenton Psychiatric Hospital and AMNJ)
 Mixed Neurosis in Middle Adolescence
- 8:15-10:30 p.m.—111 Ridgewood Ave., Glen Ridge (Essex Psychiatric Seminar and AMNJ)

 12 Drug Interactions in the Use of
 - Psychotropic Medications 9-11 a.m.—Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and

(NJ Academy of Family Physicians and AMNJ)

21 Brief Intensive Therapy with Resistant

Families
12 noon-1 p.m.—Carrier Foundaton,
Belle Mead
(Carrier Foundation and AMNJ)

PATHOLOGY

Dec.

9 Organization, Replication, and Transcription of the Mammalian Mitochondrial Genome 16 The Role of ER in Secretion of Membrane

Biogenesis
4-6 p.m.—Institute for Medical Research, Copewood St., Camden
(Institute for Medical Research and
AMNJ)

Jan.

6 Cell Interactions and Differentiation

Are You Moving?

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CARDIOLOGY UPDATE...

IS DESIGNED FOR THE PHYSICIAN AND PROVIDES AN INTENSIVE SURVEY OF THE CURRENT STATUS OF CLINICAL CARDIOLOGY...

WEDNESDAY, DECEMBER 1, 1982

20 minute lectures—Questions and Answers (10 minutes)

MODERATOR: BERNARD L. SEGAL, M.D.

THE TIMING OF SURGICAL INTERVENTION IN PATIENTS WITH AORTIC VALUE DISEASE/CASE PRESENTATION

Abdulmassih S. Iskandrian, M.D.

EXERCISE AND HEART DISEASE: A CONTROVERSIAL SUBJECT—1982

Sheldon R. Bender, M.D.

WHAT'S NEW IN THE DIAGNOSIS AND MANAGEMENT OF PULMONARY EMBOLISM?

Jospeh R. Carver, M.D.

THE MANAGEMENT OF HEART BLOCK: 1982

Scott R. Spielman, M.D.

ELECTROPHYSIOLOGIC EVALUATION OF VENTRICULAR TACHYCARDIA

Allan M. Greenspan, M.D.

3:00 P.M.—2nd floor New College Building, Hahnemann University

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CME CATEGORY | CREDITS CERTIFIED •

WINE & CHEESE SERVED FOLLOWING CONFERENCE

- 3 Molecular Interactions of Cells with Extracellular Matrix Molecules
- 20 Cellular Adhesion and Recognition
- 7 Retroviruses and Cancer 4-6 p.m.—Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJ)

PEDIATRICS

)ec.

0 Recent Advances in Pediatrics

8:15-9:45 a.m.—Overlook Hospital, Summit (Overlook Hospital/Columbia University College of Physicians and Surgeons and AMNJ)

Surgical Aspects of Neonatal Jaundice
 12 noon-1 p.m.—Mountainside
 Hospital, Montclair
 (Mountainside Hospital and AMNJ)

lan.

5 Pediatrics: Congenital Diseases 10:30 a.m.—St. Mary's Hospital, Passaic (AMNI)

6 Muscle Diseases in Children 9 a.m.—Freehold Area Hospital (AMNJ)

Vesico-Ureteral Reflux: The Changing Tide 8:15-9:45 a.m.—Overlook Hospital,

Summit
(Overlook Hospital/Columbia University
College of Physicians and Surgeons and
A M N.I)

7 Nutritional Support of the Hospitalized Child

12 noon-1 p.m.—Mountainside Hospital, Montelair (Mountainside Hospital and AMNJ) RADIOLOGY

Dec.

4 Real-time, Cross-sectional Sector

5 Scanning

9 a.m.-5 p.m.—Nassau Inn, Princeton (National Foundation for Noninvasive Diagnostics and AMNJ)

Ultrasound of the Scrotum
7:30-9:30 p.m.—Summit Squire, Summit
(NJ Institute of Ultrasound in Medicine
and AMNJ)

16 Lecture Series 7:15 p.m.—Saint Barnabas Medical

7:15 p.m.—Saint Barnabas Medical Center, Livington (Radiological Society of NJ and Diagnostic Radiology Section of AMNJ)

23 Cardiac Imaging—Past, Present, and Future

11 a.m.-12:30 p.m.—St. Joseph's Hospital and Medical Center, Paterson (St. Joseph's Hospital and AMNJ)

Jan.

19 Dinner Meeting 6:30 p.m.—The Manor, West Orange (Radiotherapy Section of AMNJ)

SURGERY

Dec.

1 Anal and Stomal Continence 9:30-10:30 p.m.—The Manor, West Orange (NJ Society of Colon & Rectal Surgeons and AMNJ)

7 Phlebitis with Criteria for Patient Admission

8-9 a.m.—Greater Paterson General Hospital, Wayne (NJ Division, American Trauma Society and AMNJ)

8 Role of Surgery in Thyroid Nodules— Recent Advances in the Management of Head and Neck Cancer
1-2:30 p.m.—Christ Hospital, Jersey
City
(Christ Hospital and 4 MN I)

(Christ Hospital and AMNJ)

20 Surgical Aspects of Neonatal Jaundice 12 noon-1 p.m.—Mountainside Hospital, Montclair (Mountainside Hospital and AMNJ)

Jan.

25 Syndrome of the Infarcted Lymph Node 8-10 p.m.—Englewood Club, 115 E. Palisade Ave., Englewood (Englewood Surgical Society and AMNJ)

SURGICAL SPECIALTIES (includes ENT, Neurosurgery, Ophthalmology, Orthopedic, Plastic, and Vascular Surgery)

Dec.

15 Update: Intraocular Lens 11:30 a.m.-12:30 p.m.—Columbus Hospital, Newark (Columbus Hospital and AMNJ)

21 The Laser in Neurosurgery 8-10 p.m.—Englewood Club, 115 E. Palisade Ave., Englewood (Englewood Surgical Society and AMNJ)

Jan.

8 Cleft Lip and Palate Surgery 8-10 a.m.—Newcomb Hospital, Vineland (Newcomb Hospital)

MISCELLANEOUS

Jan.

20 Medical Consequences of Nuclear War— The Last Epidemic 5-6:30 p.m.—Somerset Medical Center, Somerville (Somerset Medical Center and AMNJ)

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1. Promoting Health/Preventing Disease: Objectives for the Nation, U.S. Department of Health and Human Services, November 1980. An in vitro simulation of gastric ulcer acid level conditions based on standard laboratory methodology. Data on file, Ayerst Laboratories. Acid-neutralizing capacity of RIOPAN and RIOPAN PLUS = 13.5 mEq/5 ml or jablet.

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r. Joseph A. Bocchini

A member of our Essex County comonent, Joseph Anthony Bocchini, I.D., died on August 22, 1982. Born in ewark in 1908, Dr. Bocchini earned a edical degree from Long Island Uniersity School of Medicine, New York, h 1931. For his 50 years of service, Dr. occhini received the Golden Merit ward from MSNJ in 1981. Dr. Bocnini was affiliated with Saint Michael's fedical Center, Presbyterian Hospital, and Martland Hospital, all in Newark. Ie was a member of the American fedical Association.

r. A. Hobson Davis

Word just has been received of the eath of Andrew Hobson Davis, M.D., October, 1981. Born in 1899, Dr. avis was graduated from Emory Uniersity in 1925. During his lengthy caer, Dr. Davis was affiliated with Genral Hospital, Wayne, Christian Health are Center, Wyckoff, Chilton Memoril Hospital, Pompton Plains, and South ergen Hospital, Hasbrouck Heights. In 978, Dr. Davis moved to Georgia and etired from practice. An emeritus memer of our Passaic County component, Dr. Davis was a member of the Amerian Medical Association, a Diplomate f the American College of Pathology, nd a Fellow of the American College of urgeons. In 1975, Dr. Davis received ISNJ's Golden Merit Award in recogition of his 50 years of medical practice.

r. George F. Frederick

On August 22, 1982, George F. rederick, M.D., of Woodbridge, died. Dr. Frederick received his medical egree from the University of Pecs, Iungary, in 1929. He came to the Unitd States in 1939 and set up a family ractice after serving in World War II. Dr. Frederick was awarded presidential itations by Presidents Eisenhower, ohnson, and Ford. In 1975, he received he Paul Harris Fellow Award. In 1979, Dr. Frederick received MSNJ's Golden Merit Award for 50 years of service to he medical community. Dr. Frederick vas affiliated with Rahway Hospital. He vas a member of our Middlesex County component and of the American Medical Association.

Dr. Avrohm Jacobson

Avrohm Jacobson, M.D., a member of our Monmouth County component, died on August 24, 1982. Born in 1919, Dr. Jacobson was graduated from Tulane University School of Medicine, New Orleans, in 1944 and completed an internship at Newark Beth Israel Medical Center in 1945. Dr. Jacobson was affiliated with The Medical Center, Neptune, Monmouth Medical Center, Long Branch, and Veterans Administration Hospital, Lyons. He was a Diplomate of the American Board of Psychiatry; he was a Fellow of the American Association for the Advancement of Science, of the American Psychiatric Association, and of the American College of Physicians. Dr. Jacobson was a Clinical Psychology Professor, UMDNJ-Rutgers Medical School.

Dr. C. Wright MacMillan

Word has been received of the death of Charles Wright MacMillan, M.D., on August 10, 1982. Born in 1895, Dr. MacMillan was graduated from Vanderbilt University in 1919. During his lengthy career, Dr. MacMillan served as pathologist at Passaic General Hospital and St. Mary's Hospital, Passaic, and as Deputy Medical Director of Montclair Defense Corps. Dr. MacMillan was affiliated with The Mountainside Hospital, Montclair, Newark Eye and Ear Infirmary, and Essex County Hospital, Cedar Grove. Dr. MacMillan was a member of our Essex County component, of the American Medical Association, and of the American Society of Plastic and Reconstructive Surgeons. He was a Diplomate of the American College of Otolaryngology and served as president of the Passaic County Medical Society. In 1969, Dr. MacMillan was a recipient of MSNJ's Golden Merit Award. Dr. MacMillan retired to Dunedin, Florida, in 1978.

Dr. Shafeek Nafash

Shafeek Nafash, M.D., a member of our Hudson County component, died on

September 5, 1982. Born in 1902, Dr. Nafash was graduated from Columbia University College of Physicians and Surgeons in 1929. An orthopedic surgeon, Dr. Nafash was affiliated with Christ Hospital, Jersey City, and North Hudson Hospital, Weehawken. During World War II, Dr. Nafash was a major in the army air corps. In 1979, he was a recipient of MSNJ's Golden Merit Award, given to physicians who have devoted 50 years to the practice of medicine.

Dr. David C. Roberts

Word just has been received of the death of David Charles Roberts, M.D., on July 27, 1982. Born in 1905, Dr. Roberts earned a medical degree at Tulane University School of Medicine, Louisiana, in 1928. Dr. Roberts was the Medical Director of the Guardian Life Insurance Company, Summit, and had a private practice limited to cardiology. Dr. Roberts retired in 1970 and returned to his hometown of New Orleans, Louisiana. Dr. Roberts was an emeritus member of our Essex County component and of the American Medical Association.

Dr. E. LeRoy Wood

At the grand age of 87, Earl LeRoy Wood, M.D., an emeritus member of our Essex County component, died on August 20, 1982, after a long illness. Dr. Wood was graduated from New York Medical College in 1917 and completed an internship at Newark City Hospital in 1921. Dr. Wood maintained a practice in Newark until his retirement in 1957. He was affiliated with Children's Hospital, Martland Hospital, and Presbyterian Hospital, all in Newark. Dr. Wood was a Diplomate of the American Board of Otolaryngology, a member of the American Medical Association, and a Fellow of the American College of Surgeons. He served as a past president of The Academy of Medicine of New Jersey. During the 1930s, Dr. Wood served as Secretary of the Essex County Medical Society.

BOOK REVIEWS

Cross-sectional Echocardiography

Arthur E. Weyman, M.D. Philadelphia, PA, Lea and Febiger, 1982. Pp. 525. Illustrated. (\$48.50)

This is a first edition, comprehensive text devoted to cross-sectional echocardiography of the heart and associated great vessels.

The first two chapters describe the physical principles of ultrasound and the instrumentation along with in-depth definition of terminology. The second two chapters discuss the approach to patient examination and detailed explanations of the various imaging planes which may be utilized. The remaining text of ten chapters discusses the clinical application of this technique by focusing on anatomic structures, e.g. mitral valve, aortic valve, and interatrial septum. Virtually every cardiac pathologic state is included in the text.

An impediment to illustrating abnormalities seen with cross-sectional echocardiography is the limitation imposed by having to use still-frame photography. The author has surmounted this obstacle by using high resolution echocardiograms and illustrative paired diagrams. The legends to illustrations are detailed and easily understood. The chapters are followed by a short bibliography of key references. Two appendices are included describing a modified system for describing left ventricular function and normal measurements in adults.

This book is a superb text for the student of cross-sectional echocardiography, be they technicians, physicians, or scientists who wish to learn the technique. In contrast to many texts, Cross-sectional Echocardiography is written so concisely and clearly that few ambiguities can arise as to the intention of the author on a subject. Diligent study of this reference text may render a student "expert" before hands-on experience with the instrument. This book is a must reference text for cardiologists and physicians performing cross-sectional echocardiography of the heart.

Robert M. MacMillan, M.D.

A Diabetic Doctor Looks At Diabetes, His and Yours

Peter A. Lodewick, M.D. Cambridge, MA, RMI Corporation, 1982. Pp. 175. (\$7.95)

There are many books on the subject of diabetes but A Diabetic Doctor Looks at Diabetes, His and Yours is outstanding. A major and unusual reason is that the physician shares the same illness as his prospective readers.

Dr. Lodewick shares the readers' emotions when he is found to have diabetes following an infection with Coxsackie B4 virus, as well as the frustrations with diet, testing, and the constraints imposed by diabetes. In so doing, he does not simply lecture to his fellow sufferers, but delivers his message as one of them. His style makes easy, frequently light-hearted reading, with examples from his own and from his patients' experiences. The anecdotes accent a feeling of kinship with his readers.

The material is factual, explicit, and up to date, with many chapters of particular interest to the diabetic individual. These include chapters on diet, what to do when ill with intercurrent infections, the effects of alcohol, foot care, and travel instructions. His optimism shines through his writings, as he describes what has been accomplished so far, as well as his hopes for future research towards cure of this affliction. Definitely, this is a book to recommend to patients.

Samuel E. Einhorn, M.D.

Diagnosis and Management of Obstetric Emergencies

Hossam E. Fadel, M.D. Menlo Park, CA, Addison-Wesley Publishing Company, 1982. Pp. 336. Illustrated. (\$26.95)

Diagnosis and Management of Obstetric Emergencies, written by 14 contributors, covers common and important emergencies with stress in clinical diagnosis and management. It is divided into five parts: early, late pregnancy complications, intrapartum, post partum, and associated medical and surgical complications. The format of the book is extremely practical and provide: direct information to the busy physician Each chapter starts with a brief contents and an overview of the items discussed Marginal notes highlight the important points.

This volume is intended for family physicians providing obstetric care. I fully agree with the editor that this book's currentness and practicality make it suitable for practicing obstetricians and residents in training. It should be useful to nurse clinicians, midwives, and physicians' assistants involved with obstetrical care as well.

On the negative side, the reviewer finds too much emphasis by the authors to refer patients with obstetric complications to the "Ivory Tower," or tertiary obstetrical care centers, rather than using a local specialist as the first logical step.

Some important omissions are found. For instance, the use of laminaria tents in the management of intrauterine fetal death is not mentioned. The role of external version in the management of breech presentation is not discussed, and the value of breech scores, such as the Zatuchni-Andros, is not mentioned. The use of pelvic ultrasonography in the management of postpartum hemorrhage is not discussed. Probably the most important omission is the absence of a chapter dealing with the management of trauma during pregnancy.

Minor differences of opinion exist between the reviewer and the authors. The authors stress the fact that the usual incision for cesarean section in emergency situations should be the lower midline, with a few advocates for the transverse type of abdominal incision. Most modern, well-trained pelvic surgeons will disagree with that statement. In addition to the cosmetic reason, the advantages of the transverse incision over the vertical one are numerous, and when done properly, the transverse incision does not take much longer to perform than the latter. The use of the

traperitoneal type of cesarean section discouraged, and is presented as a fficult and time-consuming approach, ith increased chance of injury to the adder and ureter, Although rarely incated, it is of great value in the presice of severe infection, and it is not ore difficult or time consuming than e standard type when performed proply by a competent surgeon. The autors recommend that when the exected date of delivery is doubtful, paents should not undergo elective repeat sarean section unless amniocentesis is erformed and the lecithin/ phingomyelin (L/S) ratio demonstratig fetal maturity is assured. The use of nniotic fluid phosphatidyl glycerol easurements as an index of fetal lung aturity is not mentioned. If amniocensis cannot be performed, they recomend waiting for spontaneous onset of bor prior to repeat cesarean section. urprisingly, the authors fail to recomend or discuss the use of ultrasonogtohy for determination of gestational ge and calculation of the expected date f confinement. Currently, the use of erial ultrasonography and appropriate inical evaluation of the progression of regnancy has made the use of invasive chniques, such as amniocentesis, the xception rather than the rule.

Despite the minor criticisms, the reiewer finds this book to be very well ritten, offering excellent current and ractical information with fairly comrehensive coverage of the most freuent obstetric emergencies seen by the usy practitioner. I recommend it vithout hesitation. It does make a erfect complement to a standard obtetrical textbook.

Marco A. Pelosi, M.D.

he Practice of Cancer Surgery

ntonio Alfonso, M.D., and Bernard Gardner, M.D., (eds). New York, NY, appleton-Century-Crofts, 1982. Pp. 477. Ilustrated.

This appropriate perspective on curent surgical approaches toward onological disease is welcome indeed. The nitial part of this text outlines the general basic principles that are applied in cancer management, e.g. tumor cell kinetics and cancer biology; principles of surgical oncology; chemotherapy and radiotherapy; and current status of tumor immunotherapy.

The major thrust of the book deals with malignant tumors in specific organ systems where surgical therapy is necessary. Yet, these sections incorporate the multidisciplinary approach as it applies to different stages of the disease, either as a therapeutic or adjuvant or palliative modality. The prime objective—to establish fundamental guidelines in the surgical management of cancer as utilized by a surgeon with oncological problems—is achieved expeditiously and authoritatively.

The Practice of Cancer Surgery is a must for every surgeon, surgical house officer, as well as those working in surgical oncology divisions.

Stanley S. Fieber, M.D.

Schneierson's Atlas of Diagnostic Microbiology

Edward J. Bottone, Ph.D., (ed). North Chicago, IL, Abbott Laboratories, 1982. Pp. 80. (\$2.75)

This eighth edition of the familiar, soft-covered Atlas of Diagnostic Microbiology, published by Abbott Laboratories, has been a pleasure to review. It is replete with beautiful photographs and microphotographs that make me wish once again I were spending time in the laboratory. Advances are being made in diagnostic microbiology; many of them are reflected in this book which contains a brief section on rapid methods in diagnostic microbiology and one on methods for diagnosing viral infections.

For bacterial and fungal species, the authors present concise statements of pathogenicity, morphology, and culture characteristics; for parasites, a paragraph on methods of diagnosis replaces that on culture characteristics.

This volume will be most useful for medical students and laboratory workers but, considering its cost, it well might be a gift to oneself for a quick review of diagnostic microbiology.

Hyman W. Fisher, M.D.

Textbook of Endocrinology

Robert H. Williams, M.D. Philadelphia, PA, W.B. Saunders Company, 1982. Pp. 1,270. (\$65)

The sudden death of Robert H. Williams, M.D., in November, 1979, interrupted his work on this edition. After an interval of reorganization, the work was completed by his former associates and by contributions of 49 authorities.

The dedication of this comprehensive textbook to Dr. Williams was written by his close friend and coworker, Professor William H. Daughaday; he described Dr. Williams "as a teacher of endocrinology at the bedside, in the lecture hall, and through his textbook ... he was not content to transmit simply the basic facts of endocrinology, but also convey the excitement of endocrinology and its promise for the future The world has lost a remarkable teacher and author"

Textbook of Endocrinology is overwhelming and its coverage of each of the endocrine glands together with references is a compendium of everything we should know of the subject. One wonders of the advantage had the book been printed in two volumes for easier handling, review, and study.

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A wide variety of readers will find this a useful and ideal reference book and needed in all medical libraries.

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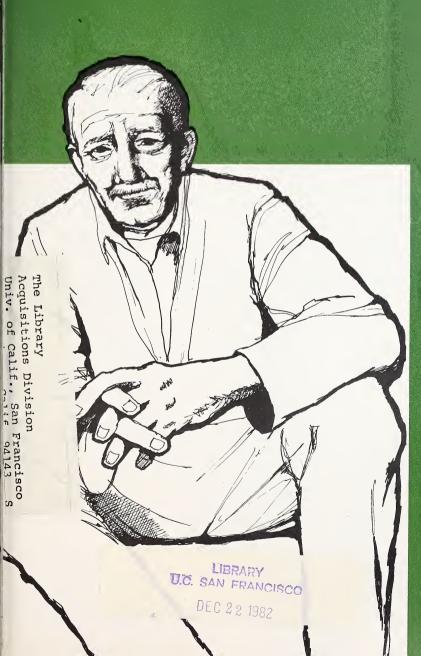
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Recurrent Ventricular Tachycardia S. Saksena, M.D., et al.

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Table of Contents Page 964



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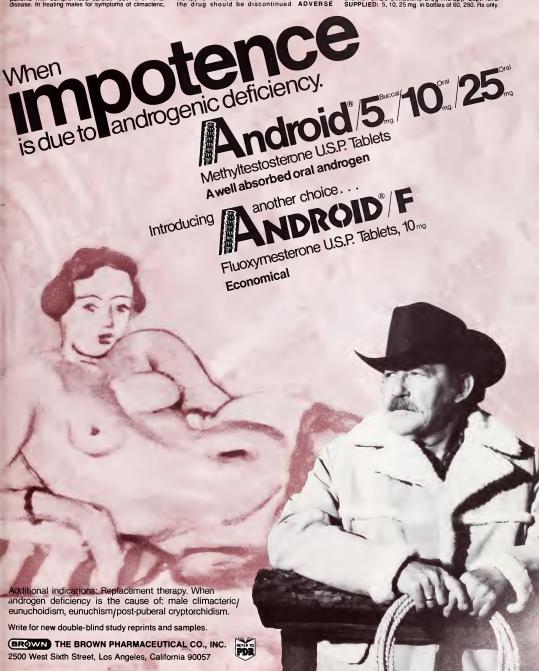
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CONTENTS

969 PROFESSIONAL LIABILITY COMMENTARY

EDITORIALS

- 974 On Teenage Pregnancy and Parenthood
- 975 The Impaired Physicians Program

HOSPITAL GOVERNING BOARDS

977 DRG System of Hospital Reimbursement: An Unproved Theory

ARTICLES

- 980 The Impaired Physicians Program
- David I. Canavan, M.D., Lawrenceville

 85 Clinical Observations with Intravenous Prostaglandin E, in Peripheral Vascular
 Disease
 - S.M. Feldman, M.D., J. Alpert, M.D., L.S. Dick, M.D., D.K. Brief, M.D., R. Goldenkranz, M.D., B.J. Brener, M.D., V. Parsonnet, M.D., Newark
- 991 Management of Recurrent Ventricular Tachycardia: A Reappraisal S. Saksena, M.D., V. Parsonnet, M.D., S.M. Husain, M.D., M.A. LeViseur-Mendonca R.N., W.E. Kaufmann, M.D., W. Rathyen, D. Ferguson, R.N., Newark
- 997 A Health Knowledge Questionnaire Survey for Senior Citizens M.S. Stuart, Ph.D., H. Kallman, M.D., H.S. Goldstein, M.D., Piscataway

STATE OF THE ART

1001 Coronary Arteriography for the Diagnosis and Treatment of Disease of the Coronary Circulation Robert M. MacMillan. M.D., Browns Mills

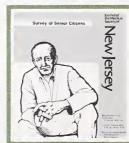
CASE REPORT

- 1011 Intrapulmonary Neurilemoma: A Rare Neurogenic Tumor G.T. Veliath, M.D., B.K. Venkatesh, M.D., A.F. Leone, M.D., Wayne
- 1015 YOUR CONGRESSMAN SPEAKS
 Matthew J. Rinaldo, Washington, DC
- 1017 MEDICAL HISTORY
 Russell L. McIntyre, Th.D., Piscataway
- 1018 WHAT IS YOUR OPINION?

 Jose F.J. Leyson, M.D., East Orange

DOCTORS' NOTEBOOK

- 1019 Trustees' Minutes: October 17, 1982
- 1020 UMDNJ Notes, Stanley S. Bergen, Jr., M.D.
- 1021 MSNJ Auxiliary, Linda B. Hirsch
- 1021 Physicians Seeking Location in New Jersey
- 1025 MEDICAL PHILATELY Joseph H. Kler, M.D.
- 1026 LETTERS TO THE EDITOR
- 1027 CME CALENDAR
- 1031 OBITUARIES
- 1032 BOOK REVIEWS
- 1035 1982 INDEX



On The Cover: A health knowledge questionnaire focusing on topics of health maintenance in the elderly revealed that senior citizens at nutrition centers are a fairly knowledgeable group. However, they have serious misconceptions in areas of illness that are peculiar to the elderly. Read the article on page 997. Cover illustration is by Elizabeth Ruggles.

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The Physician's Sleep Glossary

Some common sleep laboratory terms

poly-som-no-graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la-ten-cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af-ter sleep on-set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to-tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.¹

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.²

re-bound in-som-nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.³

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Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restilul sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flur azepam HCI: pregnancy. Benzodiazepines mp. cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depres sants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days fol-lowing discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recom mended for use in persons under 15 years of age Though physical and psychological dependence have not been reported on recommended doses. abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or henatic function.

Adverse Reactions: Dizziness, drowsiness, light headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, Gl pain, nervousness, talkativeness, apprehension, irritability, weakness palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depres sion, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity

Dosage: Individualize for maximum beneficial effect. Adults: 30 mg usual dosage; 15 mg may suffice in some patients. Elderly or debilitated patients: 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.





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Prescription Drugs, Expert Witnesses, and Medical Licenses

he United States Consumer Product Safety Commission (CPSC) has expressed concern that there may be some misunderstanding among physicians regarding the dispensing of prescription drugs not being subject to the child protection packaging standards of the Poison Prevention Packaging Act (PPPA).

To correct any such impression, the CPSC, in a letter to the Medical Society of New Jersey, offered the following:

"Prescription drugs dispensed by physicians are subject to the child protection packaging standards of the Poison Prevention Packaging Act in the same manner as prescription drugs dispensed by pharmacists. Therefore, a physician is responsible under the law for dispensing prescription drugs in child-resistant packaging.

"The law does provide that nonchild-resistant conventional packaging may be provided the consumer either at his request or at the direction of the prescribing physician. This does not, however, exempt drugs dispensed by physicians from the provisions of the law but rather allows the physicians to consciously conclude within the spirit and intent of the noncomplying package exemption provision that a particular patient, i.e. the elderly or handicapped, would be unable to gain access to the drug if dispensed in child-resistant packaging. The legislative history of this provision of the PPPA is clear in expressing the intent of Congress that noncomplying packaging is to be the exception rather than the rule."

The present law and the legislative history relating to the prescription drug regulation make it clear that dispensing physicians are subject to the PPPA and its requirements. The child protection packaging standards for aspirin and other substances have reduced childhood ingestions by as much as 60 percent while prescription drug ingestions have been reduced by only approximately 22 percent. Part of the reason for the relatively small reduction in childhood ingestions of prescription drugs may be confusion over the physician's responsibilities when dispensing prescription drugs. In addition, dispensing physicians can play a vital role in increasing consumer acceptance and use of child-resistant packaging by demonstrating its proper use and encouraging the consumer in the importance of its use in reducing childhood ingestions and deaths.

It is important that physicians who dispense their own drugs clearly understand their responsibilities under the law. Any further inquiries in this matter may be directed to Otto T. Hall, Director, Northeastern Regional Office, United States Consumer Product Safety Commission, 6 World Trade Center, Vesey Street, New York, NY 10048.

COURT RULES ON EXPERT WITNESS AFTER RULE 4:21 PANEL REACHED DECISION

The New Jersey Supreme Court has resolved the question of whether a party in a malpractice action may name an additional expert witness after the Rule 4:21 panel has reached a unanimous decision. In Goddard v. Orthopedic Consultant Associates, et al., A-28, September Term, 1981, the Court determined that the introduction of new expert witnesses after the Rule 4:21 panel had rendered a unanimous decision completely would undermine Rule 4:21.

The underlying malpractice claim in Goddard was based on the plaintiff's contention that improper operative and postoperative care resulted in the plaintiff's need to undergo excision of the head of the right femur and total hip replacement.

At the Rule 4:21 panel hearing in May, 1979, the plaintiff relied solely on a written report of a Dr. Rubacky, dated October 5, 1978. The panel decided unanimously in favor of the defendants, and entered its order on July 26, 1979.

Seven months after the panel's unanimous decision, the plaintiff attempted to introduce a report of another orthopedic expert, Dr. Richard Ball. Defense counsel moved to bar the introduction of this report on the grounds that it violated the spirit of Rule 4:21. This motion was granted and the plaintiff appealed.

The Superior Court Appellate Division reversed the lower court and held that under the circumstances of the case, the expert's report was admissable. The appellate division based its holding on a conflict between Rule 4:21 and another rule of civil practice which permits amendments to interrogatories up to 20 days before trial.

The New Jersey Supreme Court resolved the conflict. It said, "To permit new experts after the panel has rendered a unanimous decision would completely undermine the ef-

^{*}This item, from the Department of Professional Liability Control, MSNJ, was prepared by James E. George, M.D., J.D., and A. Ronald Rouse, who are, respectively, Director of the Department and Director of Special Projects.

ficacy of Rule 4:21." The Court noted that a unanimous panel finding is admissable at trial and as such should encourage compromise among the parties. If additional evidence not considered by the panel were to be admitted into evidence little or no weight may be given to the panel's finding.

On a related issue, in a case captioned Belle et al. v. United Hospital Medical Center, A-29/30/31, September Term, 1981, the New Jersey Supreme Court decided that parties may not introduce a new expert after the Rule 4:21 panel hearing has been conducted, but before its decision is made.

Summary: The New Jersey Supreme Court has ruled that a party to a malpractice case may not introduce new expert testimony after a panel has made its unanimous decision. It also forbade the naming of a new expert after the panel has heard the case but before it renders its decision. These decisions are in keeping with the objective of Rule 4:21, to expeditiously resolve medical malpractice suits.

PHYSICIAN'S ALERT

If a physician uses a standard consent form for a specific procedure, he or she should note any changes that may have occurred during the procedure in the operative report.

It has been learned that some "diet clinics" are requesting physicians in their employ in advance to sign prescriptions for potassium substances and patient physical forms. Under no circumstances should physicians sign either of the forms in advance nor should they sign any forms regarding a patient whom they have not examined.

DID YOU KNOW. . .

An Ohio court recently held a chief surgeon liable under the doctrine of respondeat superior for the negligence of the nurse-anesthetist? The court ruled that "we seek only to ensure, that where, in the operating room, a surgeon does control or realistically possesses the right to control events and procedures, he does so with a high degree of care." Personal Injury Newsletter, August 16, 1982, Vol. 26, No. 4.

MIIENJ's Region Two office responsible for Hunterdon, Somerset, Union, Middlesex, and Mercer counties now has a toll-free number: 800-257-5391?

Nearly half of all malpractice claims that stem from emergency room treatment involve misdiagnosis? This was the conclusion of a study at the Risk Management Foundation of Harvard Medical Institutions. *Medical Economics*, September 27, 1982.

A federal trial court in New York has ruled a state statute unconstitutional that prohibits persons from voting who have been adjudged incompetent or involuntarily committed to a mental institution by a court order? *The Citation*, September 1, 1982.

REVOCATION OF LICENSE

The New Jersey Supreme Court, in In re Polk, A-89, September Term, 1981, held that the Board of Medical Examiners may revoke a physician's license to practice medicine if a violation of the statutes regulating the practice of medicine is proved by a "preponderance of the evidence." In contrast, attorney disbarment proceedings require a higher degree of proof—that of "clear and convincing evidence." The high court ruled that the difference in the degree of proof required in the attorney and physician disciplinary proceedings does not constitute invidious discrimination, nor does it deny the physician equal protection

under law.

The Court pointed to "signal differences between the medical and legal professions." The Court observed that unlike the practice of law, the daily practice of medicine concerns life and death consequences to members of the public. It also noted that virtually every aspect of an attorney's professional conduct is subject to accountability and that the disciplinary machinery governing conduct is extensive. The Court also pointed out that disbarment of attorneys is permanent in contrast to the revocation of a medical license, which subsequently can be restored.

The Court further noted that physician disciplinary proceedings involve high substantive standards; insanity, physical or mental incapacity, professional moral turpitude, gross malpractice, or neglect in the practice of medicine and endangering health or lives. The Court also commented on the procedural aspects of physician disciplinary proceedings and said, "The framework is designed to provide complete fairness, objectivity, and impartiality in the administrative adjudication."

The Polk case arose when a 7-count complaint was filed with the State Board of Medical Examiners charging Irwin T. Polk, M.D. with sexual abuse of five juvenile female patients. The New Jersey Supreme Court remanded the case to the Board so that it could hear the arguments of Dr. Polk's attorney as to mitigating circumstances which may affect the issue of punishment.

Summary: The New Jersey Supreme Court has determined that violations of the statutes regulating the practice of medicine may be shown by a "preponderance of the evidence." Attorneys may be disbarred only on a showing of "clear and convincing evidence."

BRAIN DAMAGE SETTLEMENT TOPS ALL-TIME HIGH

A child who suffered brain damage immediately after birth received an annuity that will amount to \$122 million if she lives the full 78-year average female lifespan.

The cash value of the annuity is \$8 million, making it the largest settlement in a medical malpractice case in the United States.

The out-of-court settlement on behalf of Anna Younger, 2½, was approved in San Jose, California, Superior Court on September 16, 1982. The suit alleging negligence named Stanford University Medical Center, Mid-Peninsula Health Services, and Joseph R. Hopkins, M.D., who attended the birth.

Anna Younger was born normal and healthy but subsequently was deprived of oxygen for several minutes. Her father, Charles Younger, held her and called a nurse when she stopped crying and lay limply in his arms. The baby was resuscitated but now is severely damaged. She was born to Jocelyn Cunningham, Younger's wife, after a difficult 36-hour labor.

The settlement awards \$150,000 each to the parents and makes initial yearly payments of \$81,960, increasing to \$275,000 plus interest annually after 20 years.

Stanford University Medical Center did not admit liability, but a spokesman said the settlement was made because it seemed to be the "fair and equitable response."

The first 20 years of payments are guaranteed whether or not the girl lives. Her parents reportedly have said that if she dies, they will donate the payments to charity. The plaintiff's lawyer, James Bostwick, San Francisco, California, will receive \$650,000. Medical Liability Monitor, September 28, 1982, Vol. 7 No. 9.



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inintracranial pressure. Narcotics produce adverse reactions which may obscure the clinical course of patients
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Acute abdominal conditions: Codeine or other parcotics

Acute aborninal conclutions: Loderine or other in patients may obscure the diagnosis or clinical course in patients with acute abdominal conditions. Special risk patients: Administer with caution to certain patients such as the elderly or debilitated, and those with severe impartment of hepotheric present function, hypothy-

severe impairment of hepátic or renal function, hypothyroidism, Addison's disease, and prostatic hypertrophy or urethral stricture. Information for Patients: Codeine may impair the mental and or physical abilities required for the performance of potentially hazardous lasks such as driving a car or operating machinery. The patient taking this drug should be cautioned accordingly. Drug-interactions: Patients receiving other narcotic analgesies, antipsycholics, antianxiety, or other CNS analgesies, antipsycholics, antianxiety, or other CNS aminophen and codeine may exhibit additive CNS depression due to the codeine component. When such therapy is contemplated, the dose of one or both agents should be reduced.

The use of MAO inhibitors or tricyclic antidepressants with codeine preparations may increase the effect of

with code ine preparations may increase the effect of either the antidepressant or codeine.

The concurrent use of anticholinergics with codeine may

produce paralytic ileus

Usage in Pregnancy: Safe use in pregnancy has not
been established relative to possible adverse effects on
fetal development. Therefore, acetaminophen and codeine should not be used in pregnant women unless, in
the judgment of the physician, the potential benefits out-

weigh the possible hazards.

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nents of this drug are excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when acetaminophen and codeine are administered to a nursing woman.

Adverse Reactions: Most frequently: Lightheadedness, dizzness, sedation, shortness of breath, nausea and vomiting. More prominent in ambulatory than in non-ambulatory patients, and some of these adverse reactions may be allevitated if the patient lies down. Others: Express, dysphorat, consignation and pruries should be adjusted according to severity of pain and response of the patient. However, it should be kept in mind that tolerance to codeine can develop with continued use and that the incidence of untoward effects is dose related. This product is inappropriate even in high doses for severe or impractable pain. Adult doses of codeine higher than is inappropriate even in high doses for severe or intractable pain. Adult doses of coderne higher that 50 mg fail to give commensurate relief of pain but merely protong analyses and are associated with an appreciably increased inchence of undergraphs outle after Seguivalently high doses in undergraphs outle flave smith

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On Teenage Pregnancy and Parenthood

Teenage pregnancy and childbearing is a major health and social problem in New Jersey, as it is in the entire nation. The medical and social hazards of school-age children bearing children are well documented and almost entirely preventable.

The sexual revolution, which preceded the establishment of family planning clinics in the 1970s and the 1973 Supreme Court decision legalizing elective abortions, has resulted in increased societal acceptance of premarital sex and single parenthood. More teenagers are having sex at an earlier age, becoming pregnant, choosing to remain unmarried, carrying to term, and choosing to keep their babies rather than releasing them for adoption. These changes in attitude and behavior are not going to be reversed by recent governmental attempts to make it more difficult for teenagers to obtain contraceptive advice or abortions. Such misguided policies are only likely to result in more teenagers having late and illegal abortions or being obliged to carry their babies to term with a consequent tremendous increase in expenditures for welfare and medical and social services.

Intervention programs that currently exist tend to be fragmented and short-term, and focused on the prenatal and early postnatal period rather than being geared both to prevent pregnancy and/or to prevent the long-term negative consequences of school-age parenthood. Although more and better research is needed to further document the etiological factors and medical, social, and psychological consequences of teenage pregnancy and parenthood and to demonstrate the effectiveness of intervention programs, enough is known now to warrant immediate and urgent implementation of comprehensive primary and secondary prevention programs.

PRIMARY PREVENTION

Primary prevention programs addressed to teenagers of both sexes and their families are needed to prevent pregnancy and to prevent unwanted and ill-timed childbirth. At present, the average age of first sexual intercourse is 16 years. Nearly half of all sexually active teenagers, including four out of five black teenagers, become pregnant at least once during their teenage years with one out of five giving birth. Despite increased availability of contraceptives, most teenage girls and the overwhelming majority of teenage boys do not use contraception at all or only inconsistently. Those teenagers who do use contraceptives tend to wait until they have been sexually active about nine months, too late for the more than half of teenage pregnancies that are conceived within six months of first intercourse and the one out of five conceived during the first month of sexual activity.

A variety of psychological, social, and educational factors interweave to result in a teenager becoming pregnant. A minority conceive due to contraceptive failure; more become pregnant due to ignorance or by default and lack of responsible planning. A substantial minority consciously chooses to have a child in attempts to resolve intrapsychic, developmental, and/or familial conflicts.

There continues to be an amazing lack of knowledge among teenagers about such matters as the time of greatest risk of pregnancy within the menstrual cycle, the frequency of intercourse needed to become pregnant, and the relative effectiveness and safety of various contraceptive methods. Though there is considerable pressure placed on teenage girls by their peers and boyfriends to engage in sexual intercourse, many girls still feel ambivalent and guilty about their sexual activity, preferring to be "swept off their feet in the heat of passion" rather than be deliberately responsible for their own sexual behavior. Many girls unfortunately choose to rely heavily on their male partners to determine frequency and timing of sexual activity and use of contraception. However, there is an appalling lack of concern among most adolescent males about the consequences of unprotected sexual activity to both themselves and their partners. Many view "knocking up a girl" as proof of their masculinity.

Those who choose to have a child most often do so without full awareness of the real burdens of rearing a child and of the likelihood of long-term negative educational and socioeconomic consequences both to parents and child. Many come to regret their decision. The choice often is triggered by attempts to resolve a variety of developmental, intrapsychic, and familial conflicts such as: anxiety over whether their body works; desires for autonomy and independence; lack of other avenues for self-esteem such as meaningful employment; and attempts to replace a previously lost loved one, to escape from an unhappy home life, or to punish or compete with a parent.

Primary prevention programs must address both the educational (i.e. ignorance) and the psychosocial factors that lead to teenagers becoming pregnant and bearing a child. A widespread program of community education is needed to inform families of the changing norms in sexual behavior among teenagers and to make it clear that teaching teenagers about responsible sexuality, contraception, and, when necessary, early abortion does not promote sexual activity but does promote safer sexual activity.

Well-designed sex and family life education courses should begin early in a child's education with special emphasis during the junior high and high school years.

Contraception and family planning services should be inexpensive and readily available with mobile outreach and/or transportation to and from programs to increase their accessibility to those most in need. Such services should be provided in conjunction with other programs, such as vocational, recreational, and medical, so that more youngsters could attend with less discomfort.

SECONDARY PREVENTION

A comprehensive program of secondary prevention also is needed to avoid the negative medical and socioeconomic consequences of teenage pregnancy and parenthood. Girls who become pregnant during their teens significantly have higher rates of fetal, perinatal, and maternal morbidity and mortality. Their pregnancies are more likely to be complicated by anemia, toxemia, urinary tract infections, uterine dysfunction, cephalopelvic disproportion, abruptio placenta, and complications of labor and delivery. Their infants are more likely to be premature and/or of low birth weight, to have neurologic or developmental impairments, and to be at greater risk for illness and death during the first months of life. Teenagers who become pregnant and carry to term are much more likely to be poor, illegitimate, and black than those who elect abortion. Being young only further increases the risks of pregnancy and childbirth. All these medical complications are preventable, particularly with teenagers 15 to 19 years, and are a direct consequence of delayed, inadequate, or totally absent prenatal care and inadequate nutrition during pregnancy.

The economic and social consequences of teenage childbearing are well documented and often permanent, with the youngest parents faring worst of all. Teenage mothers and, to a lesser extent, teenage fathers are more likely to drop out of high school, fail to complete their education and obtain vocational training, and, throughout their lives, have lower incomes, less prestigious jobs, and more limited job satisfaction. Teenage parents are much more likely to be separated or divorced from their marital partners within 15 years of childbirth and their children are far more likely to be reared in single-parent homes under conditions of dire poverty. While only one-third of women in the general population became mothers before age 20, nearly two-thirds of women who were on welfare or Aid to Families and Dependent Children gave birth as teenagers. A second child during the teen years makes it almost certain that poor educational and vocational skills, poverty, and single parenthood never will be surmounted. Such dire social, educational, and economic consequences directly are correlated with age at first childbirth and hold true even if one controls for race, socioeconomic status, academic aptitude, and educational expectations prior to the birth of the child.

It is possible for teenage parents to avoid the serious medical and socioeconomic consequences of ill-timed child-birth and to repair the damage of an early birth on their chances in life. Those who succeed in doing so most often have had the financial support and childcare assistance of their families and encouragement to complete their education and avoid future teenage pregnancies.

To prevent the medical hazards frequently associated with teenage pregnancy, obstetrical services readily should be accessible and widely publicized in the community to encourage early registration for prenatal care. In addition to routine antepartum and postpartum visits, services to pregnant teenagers and their boyfriends and families should include regular visits for individual and group counseling to

provide education about parenting and guidance to avoid additional pregnancies.

To prevent the socioeconomic consequences of teenage parenthood, long-term comprehensive programs are required. Most existing programs unfortunately do not extend beyond the early postpartum period. Those that do, tend to be fragmented, poorly coordinated with one another, and, all too often, set up for the convenience of the professional rather than the client. Public and private support needs to be generated to coordinate and expand the currently fragmented and limited array of local and state programs in order to provide comprehensive medical, psychosocial, educational, and vocational services. Child care services should be supported, whether by family members or through day care programs, in order to enable teenage parents to complete their education or obtain vocational training; job placement programs are needed to improve the young parents' economic opportunities; and family planning, medical, and pediatric services readily should be available.

Such recommendations for expanded, coordinated, and comprehensive primary and secondary preventive program for pregnant teenagers and school-age parents run counter to the current economic and political climate in New Jersey and in the nation. Funding for such services has been reduced sharply and unrealistic attempts made to reverse the trends of premarital sex, teenage pregnancy, and out-of-wedlock childbirth through making access to contraception and abortion more difficult. Such policies are shortsighted and ultimately will prove far more costly in both financial and human terms than would energetic support for comprehensive programs now.

Diane K. Shrier, M.D.
Clinical Associate Professor
Chief of Child and Adolescent Psychiatry Section
UMDNJ-New Jersey Medical School

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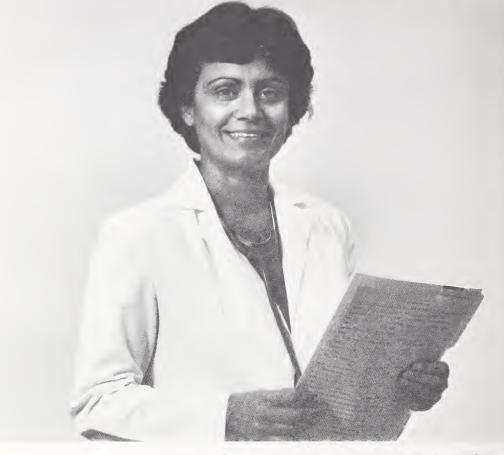
The Impaired Physicians Program

The Medical Society of New Jersey, through the wisdom of its Board of Trustees, has led the nation once again. Heeding the advice of Dr. Arthur McLellan, Dr. Edward T. Carden, and others, the Board enhanced its Impaired Physicians Program by hiring the first full-time medical director of such a program in the United States.

A benevolent, nonpunitive, preventive, and therapeutic approach which preserves the dignity and privacy of the impaired physician is the hallmark of the New Jersey plan. Read the article (page 980) on the program by its director, David I. Canavan, M.D., and look for other timely articles on the subject in *The Journal*.

A.K.

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DRG System of Hospital Reimbursement: An Unproved Theory

he Medical Society of New Jersey is concerned about the potential adverse impact of the Diagnosis Related Group reimbursement program on both the cost and quality of health care in New Jersey hospitals. Diagnosis Related Group (DRG) reimbursement (as applied in New Jersey) is a type of prospective reimbursement system that uses hospital case-mix in an effort to establish a stronger link between the resources hospitals consume and the medical needs of their patients. By reimbursing hospitals a specific rate for each DRG (or type of illness), the hospital is presented with the opportunity to retain the difference or make up the loss between the reimbursement rate and the true cost of care.

Interest regarding hospital costs and attempts to control them via regulation by the New Jersey state government date back to the 1960s. The DRG system was established in New Jersey under the aegis of the New Jersey State Department of Health, and was hailed by the Department as a "unique experiment" in hospital reimbursement. Since then, the DRG system has become an established regulatory program for New Jersey hospitals, rather than an experiment to be evaluated.

The only evaluation of this program is being conducted by the Hospital Research Educational Trust (HRET), a spinoff corporation of the New Jersey Hospital Association. The HRET indicates in *DRG Evaluation, Volume 1, Introduction and Overview* (June, 1982) that the general aim of the study is to provide an increased understanding of answers to the following questions:

- Is the system properly designed and does it work as anticipated?
- Does the system make a difference in terms of the hospital's overall performance, effectiveness, and efficiency in providing medical care?

- What is the system's potential as a regulatory device, management information or data-based planning mechanism, and utilization review tool?
- What are the advantages and disadvantages associated with DRG reimbursement for hospitals, third-party payers, and others?

As part of its study, the HRET conducted several surveys of New Jersey hospitals. The results of these surveys as reported in the first volume are interesting and problematical. More than 77 percent of the responding hospital finance directors anticipated that the DRG system would cause accounts receivable to climb. A broad consensus exists that the system has increased management, data processing, medical records, fiscal and patient billing costs, and a need for additional staff. Finally, in the various surveys, from 66 percent to 86 percent of those responding indicated considerable uncertainty as to the effect of the program on reducing the costs of medical care.

The Medical Society of New Jersey finds these factors and others to be distressing. Further data published by HRET indicates that the financial standing of non-DRG hospitals has remained, as a whole, roughly the same for 1979 and 1980, whereas the financial positions of the DRG hospitals were improved considerably. The Society finds it difficult to assess the situation where a cost containment process is called successful while the financial position of the hospitals in the program has been improved. More specific issues to be addressed are:

 Has the system, or will it, decrease the cost of hospital care in New Jersey? This does not mean the financial position

^{*}The material for this column is coedited by Arthur Krosnick, M.D., Editor of *The Journal*, MSNJ; Vincent A. Maressa, Executive Director of the Medical Society of New Jersey; and James E. George, M.D., J.D., Director of the Department of Professional Liability, MSNJ.

of the hospital, but rather the cost to the purchaser. Will it control the escalation of costs?

- Has the system affected the quality of hospital care in New Jersey and, if so, in what fashion?
- What is the effect of the hidden tax which charges each payer for a proportion of indigent care in the state?

The proponents of DRG continue to assert that it has contained costs or at least has decreased the rate of escalation of the average hospital costs in New Jersey as compared to the average cost of hospital care in the United States. This response assumes that the baseline relationship between New Jersey hospital costs and all United States hospital costs was appropriate, and that the amount of "fat" in New Jersey hospital budgets was minimal at the time the baseline parameter was established. Neither assumption has been proved and the evidence in this regard is lacking. As a matter of fact, it often was asserted by the New Jersey State

Department of Health prior to the DRG system that the rate of growth of hospital costs in New Jersey was lower than the national average. (Rate-setting requirements in New Jersey law have been present since 1971 and aggressively implemented since 1975.)

CONCLUSION

MSNJ believes it is imperative, therefore, that a prompt and independent evaluation of the DRG system and its impact on health care costs and quality in New Jersey be authorized by the state legislature and its results made public. We will continue to question the Department regarding its inability or unwillingness to publish data showing what the DRG reimbursement has been, compared to the itemized consumption of services for those hospitals that participated in the program from 1980 to the present date.



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The Impaired Physicians Program

DAVID I. CANAVAN, M.D., Lawrenceville*

n 1975, the American Medical Association convened the first national meeting on impaired physicians. The fifth meeting was held in Portland, Oregon, in September, 1982.

It long has been known that impairment is a severe problem in the lives of practitioners of the healing arts. Conferring of the medical doctorate in no way provides physicians with immunity to impairment or to any of the other illnesses to which mankind is subject. Indeed, in many ways, those who pursue the craft of Hippocrates expose themselves to special risk in this area.

Moreover, the image of the physician as the paragon of virtue, the ever-available, trusted confidant, the guardian of his patient's health, and, at times, of his patient's life, is tarnished severely when the scandal of physician dereliction is broadcast in bold letters across the newspaper page.

Our filial concern for our fellow physicians, our own vulnerability, our need to keep our house in order, and, by no means least, our moral and professional obligation to protect the patient population from physicians who are incapable of rendering appropriate care because of their impaired state require organized medicine to take the initiative to control this problem.

From 1972 to 1982, significant progress has been made throughout the country. In all 50 states, committees have been formed to deal with specific impaired physicians. In most instances, these are voluntary efforts of interested physicians usually supported by a part-time secretary at medical society headquarters. The committee is composed of psychiatrists, addictionologists, or others with personal and/or professional experience in the field. In addition, a significant number of physician members are themselves "recovering" from personal impairment.

It is a noble and valuable effort and is saving lives and careers throughout the country.

The Medical Society of New Jersey developed a program in 1977. The program became operational in January, 1979.

We followed the national model and, under the able leadership of Doctor Arthur McLellan, the program started to identify, to confront, and to get impaired physicians into treatment and subsequently back to active practice.

Our program, like most of the others, was essentially a therapeutic, nonpunitive program. It was noncoercive in philosophy and approach. The confidentiality of our physician clients was carefully guarded. At times, this created some conflict between the committee and the State Board of Medical Examiners. Ongoing dialogue between the two groups has helped to ease this conflict considerably.

It became apparent that where there was real risk to the public good, the assistance of the State Board of Medical Examiners and the suspension of the license to practice medicine were necessary steps. This helps us to fulfill our responsibility to the public and also serves as a valuable lever in encouraging a recalcitrant, seriously impaired physician to accept the help that is being offered.

This sort of action is reserved for situations in which the committee felt that the following circumstances existed:

- A serious impairment existed.
- The risk to patient care readily was evident.
- · Adequate documentation was available.
- The physician would not accept assistance voluntarily and suspend his practice pending adequate treatment.

In these cases, the "check and balance" equation was maintained in a procedural fashion. No one member of the committee could individually refer to the State Board of Medical Examiners. Such action required the endorsement of the full Committee on Impaired Physicians. This could be provided by the Executive Subcommittee of the Committee on Impaired Physicians.

At this point, to guarantee further the involved physician's rights, the committee routed its recommendation through the

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Board of Trustees of the Medical Society of New Jersey. This was in no way intended to delay appropriate and necessary action, but to establish clearly that the physician was being given every appropriate protection from capricious action by the committee or its members.

As a matter of fact, in the few cases where such action was deemed necessary, the Board of Trustees has endorsed the action each time. This should indicate that committee requests for such action, to date, consistently have been deemed appropriate.

It was not too long before the committee began to realize that the national model was inadequate to properly address the magnitude of the problem of physician impairment. In the first place, we began to realize that we were only seeing the "tip of the iceberg"; i.e. that the volume was much greater than anticipated.

The second issue was one of logistics. Given the apparent size of our potential caseload, it was impossible for most dedicated volunteers to give up, from what were usually very busy, active medical practices, the amount of time that was needed to address each individual case.

Dr. McLellan deserves much of the credit for getting our program "off the ground." Dr. Edward T. Carden, the second chairman, deserves the credit for identifying and pursuing the need for a major philosophical and economic commitment from MSNJ to this program if we were to make any significant headway. Together these two men sold the Board of Trustees and the House of Delegates on the concept

of funding a full-time salaried medical director to assume charge of the fledgling program. By doing so, New Jersey took a major forward step and has moved into the forefront in this category on a national level.

Currently, only two other state medical societies have salaried medical directors of their impaired physicians program. Florida has a part-time medical director. Georgia also has a part-time physician. The Medical Society of New Jersey, the first medical society organized in the United States, is the first to employ a full-time medical director.

One of the major concerns in arriving at this decision was finding the source of funding for this commitment. The leadership of the committee, together with the Society leadership, was able to convince the major malpractice carriers in our state of their stake in the activities of our program and we succeeded in having them join in a three-way share of the program budget.

The Medical Society of New Jersey, the Medical Inter-Insurance Exchange of New Jersey, and the Princeton Insurance Company entered into an informal partnership to provide the necessary funds for the expanded program as of September, 1982.

The sponsoring agencies as well as the committees on impaired physicians throughout the nation will be watching closely to see our progress and our results. It is probable that the expanded New Jersey program can be a pacesetter for the nation.

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We know that you, personally, do not know what to do with these colleagues. We do! But we have to know who they are. The earlier the problem is recognized and attacked, the easier it is to solve.

It is normal human behavior to ignore problems that appear insoluble. Unfortunately, the psychopathy of substance abuse and addiction always gets worse while it is ignored.

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1) bronchial asthma, 2) allergic rhinitis during the pollen season; 3) sinus bradycardia and greater than first degree block, 4) cardiogenic shock, 5) right ventricular failure secondary to pulmonary hypertension, 6) congestive heart failure (see WARNINGS) unless it is secondary to a tachyarrhythmia treatable with propranolot, 7) in patients on adrenergic augmenting psychotropic drugs (including MAO inhibitors), and during the two week withdrawal period from such drugs.

WARNINGS

CARDIAC FAILURE: In congestive heart failure, inhibition with beta-blockade carnes the potential hazard of further depressing myocardial contractility and precipitating cardiac failure. Inhibition may reduce the positive inotropic action of digitalis and may have an additive depressant effect on AV conduction. IN PATIENTS WITHOUT A HISTORY OF CARDIAC FAILURE in rare instances, cardiac failure has developed during proprianoid therapy. At the first sign of impending cardiac failure, patients should be fully digitalized and/or given a diuretic, and observed closely a) if cardiac failure continues, despite adequate digitalization and duretic therapy proprianoid should be immediately withdrawn, b) if tachyartythma is being controlled, patients should be minertained on combined therapy and closely followed until threat of cardiac failure is over. cardiac failure is over.

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IN PATIENTS WITH THYROTOXICOSIS, possible deleterious effects from long term use IN PAILENTS WITH THYROTOXICOSIS, possible deleterous effects from long term use have not been adequately appraised, dive special consideration to propranolor's potential for aggravating congestive heart failure. Propranolor may mask the clinical signs of developing or continuing hyperthyroidism or complications and give a false impression of improvement. Propranolol should be withdrawn slowly, since abrupt withdrawal may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol son or distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which after prognostic if the hyperardisk was realized by a sewere brack.

reported in which, after propranoiol, the tachycardia was replaced by a severe brady-cardia requiring a demand pacemaker. In one case this resulted after an initial dose o

5 mg propranoloi IN PATIENTS UNDERGOING MAJOR SURGERY, beta-blockade impairs the ability of the heart to respond to reflex stimuli. Except in pheochromocytoma, propranoloi should be withdrawn 48 hours prior to surgery in case of emergency surgery, the effects of propranoloi can be reversed by administration of beta-receptor agonists such as isoproterenol or levarterenol, but such patients may be subject to protracted severe hypotension. Difficulty in restarting and maintaining the heart beat has been reported. IN PATIENTS PRONE TO NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRONCHTIS, EMPHYSEMA), administer with caution, since propranoloi may block bronchodilation produced by endocenous and exogenous catecholarime stimulation of

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Observe laboratory parameters at regular intervals. Use with caution in patients is impaired renal or hepatic function

ADVERSE REACTIONS

ADVERSE REACTIONS

Cardiovascular: bradycardia; congestive heart faulure; intensification of AV block, hypotension; paresthesia of hands; arterial insufficiency, usually of the Raynaud type; thrombocytopenic purpura Central Nervous System lightheadedness, mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by discrination for time and place, short term memory loss, emotional liability, slightly clouded sensorium, and decreased performance on neuropsychometrics Gastrontestrial nausea, vomiting, epigastric distress, addominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic collitis Allergic pharyngitis and agranulocytosis, enythematious rash, fever combined with aching and sice throtical tarynospasm and respiratory distress. Respiratory: bronchospasm. Hematologic, agranulocytosis, nonthrombocytopenic purpura, it hombocytopenic purpura. Miscell'aneous reversible alopecia. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta-blocker (practolol) have not been conclusively associated with proprianolol. Clinical Laboratory Fest Frindings. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase. lactate dehydrogenase

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Reference: 1 Freis, E.D. Hypertension (Suppl. II) 3:230 (Nov.-Dec.) 1981



Clinical Observations with Intravenous Prostaglandin E₁ in Peripheral Vascular Disease

SHELDON M. FELDMAN, M.D., JOSEPH ALPERT, M.D., LEON S. DICK, M.D., DONALD K. BRIEF, M.D., ROBERT GOLDENKRANZ, M.D., BRUCE J. BRENER, M.D., VICTOR PARSONNET, M.D., Newark*

Intravenous PGE₁ was ineffective in the treatment of 14 patients with inoperable occlusive peripheral vascular disease causing limb ischemia. However, PGE₁ was effective in an additional 2 patients with distal atheroembolism; intravenous PGE₁ infusion in such patients is recommended.

n 1930, Kurzok and Lieb identified prostaglandins as a mixture of substances found in human seminal fluid that promoted uterine contractions and peripheral vasodilatation. Subsequent studies revealed their effectiveness in the treatment of symptomatic peripheral vascular disease. Prostacyclin (PGI₂), a naturally occurring prostaglandin in vascular endothelium, later was isolated and found to be a strong inhibitor of platelet aggregation. 2-9

Figure 1 demonstrates that thromboxane A₂, a potent platelet-aggregating agent and vasoconstrictor found in platelets and many tissues, is balanced by the antiaggregating and vasodilating actions of PGI₂. It is highly suggestive that this reaction governs vascular tone and the complex cascade of thrombogenesis. PGE₁, a synthesized prostacyclin analogue, also is a platelet antagonist that has skin and muscle vasodilating actions. It first was used intraarterially with some success in 1973 in four patients with peripheral vascular disease.³ Since PGE₁ almost is metabolized completely during one pulmonary circulation, direct intraarterial infusion into the ischemic limb was thought to be necessary. Nonetheless, after intraarterial infusion, some patients had dramatic relief of ischemia in the contralateral limb, which suggests that there also is a systemic drug effect.⁴

The largest clinical study reported to date using PGE₁ or PGI₂ for peripheral vascular disorders is that of Pardy, Lewis, and Eastcott.⁵ The drug was administered to 18 patients with ischemic symptoms due to arteriosclerotic

vascular occlusion, Raynaud's phenomenon, Buerger's disease, and atheroembolism (trash foot). Encouraging results measured by pain relief and ulcer healing were obtained in 8 of 9 patients who had patent proximal superficial femoral arteries.

At the Newark Beth Israel Medical Center, selected patients have received PGE₁** administered as a continuous intravenous infusion via a central vein for varied peripheral occlusive conditions causing limb ischemia. This report summarizes that experience.

CLINICAL MATERIALS

Sixteen patients were treated (Figure 2). All patients were surgically nonreconstructable as detailed by pretreatment angiography. The indications were: atheroembolism,² ischemic ulcers,⁴ ischemic rest pain without ulcers,³ ischemic amputation stumps,⁵ severe claudication,¹ and digital ulcers secondary to Raynaud's phenomenon.¹ Pre- and postinfusion segmental limb pressures and pulse volume recordings were obtained. The infusion rate was initially 0.007 microgram/kg/min which gradually was increased to 0.021 microgram/kg/min for 72 hours. The total amount of PGE₁

^{*}This paper was presented, in part, to the Vascular Society of New Jersey, UMDNJ-Rutgers Medical School, Piscataway, March 18, 1981. Correspondence may be addressed to Dr. Alpert, Peripheral Vascular Division, Department of Surgery, Newark Beth Israel Medical Center, 201 Lyons Ave., Newark, NJ 07112.

^{**}Supplied as Prostin VR® by Upjohn Company, Kalamazoo, MI.

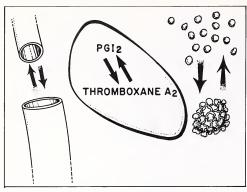


Figure 1—Graphic depiction of balance between thromboxane A_2 and prostaglandins.

DIAGNOSIS	F	PTS.
Atheroembolism		2
Ischemic Ulcer		4
Ischemic Rest Pain		3
Ischemic Stump		5
Claudication		1
Raynaud's + Ulcer		1
	Total	16

Figure 2-Patients treated with intravenous PGE,.

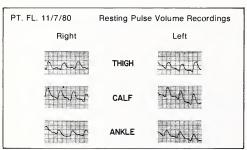


Figure 3—Pretreatment normal pulse volume recording in patient with right trash foot.

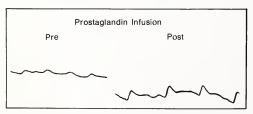


Figure 4—Pre- and post-PGE₁ infusion pulse volume recording at forefoot level in patient 1 showing increased waveform amplitude.

given was 90 microgram/kg/min. The infusion was repeated occasionally as the clinical status dictated. Severe coronary artery disease, bleeding diathesis, active liver disease, and uncontrolled metabolic disorders were contraindications to use of the drug.

RESULTS

One patient experienced moderate tachycardia although the anticipated side effects of hypotension, headaches, flushing, or abdominal cramps (usually associated with vasodilatation) did not occur. Except for occasional and unpredictable transient vasodilatation and mild initial pain relief, no real subjective or objective clinical evidence of a favorable drug response occurred, with the exception of the two patients with distal ischemia secondary to atheroembolism and patent proximal superficial femoral arteries. Their case summaries follow.

CASE REPORT 1

A 48-year-old white man had an elective resection of a 6 cm infrarenal abdominal aortic aneurysm. Foot pulses were palpable preoperatively. Prior to completion of both iliac anastomoses, Fogarty catheters were passed to assure that distal vessels were free of major thrombi. The right limb of the graft was sutured to the external iliac artery since the hypogastric artery was ligated due to the presence of a 3 cm right iliac aneurysm. Postoperatively, the right pedal pulse disappeared and the foot became cold, mottled, and hypesthetic. The right posterior tibial Doppler pressure was 150 mm/Hg, anterior tibial 150 mm/Hg, and the peroneal 130 mm/Hg (Figure 3). The pulse volume recording of the forefoot was nearly flat (Figure 4). A 72-hour PGE, infusion induced a dramatic response in that pain subsided, sensation returned, and the vasodilated forefoot warmed. There were no ischemic sequelae.

CASE REPORT 2

The patient was a 67-year-old white, nondiabetic man who had previous operations for an abdominal aortic, iliac, superficial femoral, and popliteal aneurysms. While being rehabilitated in another institution for a right below-knee amputation, he developed acute pain in his left foot. After transfer to this hospital three days later, his left foot was found to be anesthetic and mottled. A 3 cm common femoral aneurysm with an ectatic superficial femoral artery extending to the popliteal fossa was palpated. At surgery, a thrombosed left popliteal aneurysm was bypassed with a Goretex® graft from the common femoral artery to the thrombectomized distal tibial artery. Postoperatively, the patient had a bounding tibial pulse, yet the foot remained severely ischemic (Figure 5). This was thought to be due to the prolonged preoperative period of ischemia and thrombosis of the pedal arch or atheroembolization. After PGE, infusion, the ischemic changes reversed. He was discharged without tissue loss and he continues to do well after a six-month convalescence.

DISCUSSION

While the first patient had a typical trash foot following resection of an abdominal aortic and iliac aneurysm, the second patient was less typical. It has been reported that patients with aneurysms seem more prone to the complication of trash foot possibly as a result of increased operative manipulation. In a 22-year review of 585 elective abdominal aortic aneurysm resections, Roberts noted that 113 patients (20 percent) had some degree of leg ischemia most commonly caused by atheroembolism (8 percent). For prevention, careful flushing of the completed anastomoses and early clamping of the aorta and iliac vessels have been recommended. Even with adequate precautions, however,



Figure 5-Ischemic forefoot in patient 2.

atheroembolism will occur occasionally. PGE_1 infusion therapeutically was effective in our two patients who developed trash foot. The beneficial result more than likely is due to a combination of platelet lysis and vasodilatation in patients with patent proximal arteries.

In light of the limited beneficial effects from intravenous ${\rm PGE}_1$ infusions in this selected cohort of patients with peripheral vascular disease, the next evaluation contemplated will be that of a similar group treated by intraarterial infusion.

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Management of Recurrent Ventricular Tachycardia: A Reappraisal

SANJEEV SAKSENA, M.D., VICTOR PARSONNET, M.D., S.M. HUSAIN, M.D., MARY ANN LeVISEUR-MENDONCA, R.N., WALTER E. KAUFMANN, M.D., WILLIAM RATHYEN, DIANE FERGUSON, R.N., Newark*

Recurrent paroxysmal ventricular tachycardia has been a difficult therapeutic problem. The authors discuss the reentrant mechanisms underlying recurrent ventricular tachycardia. Clinical electrophysiologic studies with laboratory induction of the arrhythmia allow evaluation of the mechanisms, site of origin, and direct therapy. Illustrative examples of the three therapeutic modalities, antiarrhythmic agents, pacemaker therapy, and cardiac surgery, selected on the basis of electrophysiologic studies, are described. Long-term results and impact on the health care system distinctly are favorable with this approach.

isorders of cardiac rhythm present a daily challenge to practicing physicians. Recognition of the contribution of a stable cardiac rhythm to the circulation of blood is a historical observation of some antiquity. William Harvey, for example, commented on the organized spread of the heartbeat in animal experiments. In recent times, the establishment of a definite link between the sudden death syndrome and ventricular tachyarrhythmias has assumed particular importance. It is estimated that in the United States over 300,000 persons die suddenly each year; it is the foremost cause of death in North American and European populations.

An empirical trial and error approach to the management of malignant ventricular tachyarrhythmias employed in clinical practice only too often has been a frustrating experience. It is particularly disturbing to note that in the sudden death project in Miami, 31 percent of the patients resuscitated from out-of-hospital cardiac arrest had seen a physician in the month preceding the event.² Of those successfully resuscitated from cardiac arrest, 25 to 35 percent will experience a recurrence within one year. The need for effective therapy has become a national health dilemma. In a this article, we offer an appraisal of present concepts and management of recurrent ventricular tachycardia.

MECHANISMS OF RECURRENT VENTRICULAR TACHYCARDIA

The concepts underlying the genesis of cardiac arrhythmias were developed early in this century. These included abnormal automaticity (enhanced or triggered) or abnormal conduction (reentry). Rational understanding of the basis of ventricular tachycardia, however, awaited the development of an experimental model for its study. The chronic myocardial infarction model was developed in the animal electrophysiology laboratory. This permitted the successful electrical induction of ventricular tachycardia and careful study of the arrhythmia. Elegant studies by El-Sherif et al. established the reentrant nature of recurrent ventricular tachycardia in this model.3,4 They noted that slowed conduction properties along with conduction blocks at the border of the infarct zone permitted the development of circus movement tachycardia in that location. Furthermore, they established that abnormal conduction in the periinfarction zone was the electrophysiologic substrate that allowed the genesis

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of a sustained reentrant arrhythmia. Premature impulses, whether atrial or ventricular, exaggerated these latent conduction disorders in diseased ventricular myocardium. Therefore, for the successful induction of a sustained reentrant ventricular arrhythmia in man, an electrophysiologic substrate of diseased myocardium is necessary; premature impulses then may lead to the development of the cardiac arrhythmia. These two factors frequently are independent of each other, even though the site of origin of the premature impulses often is far removed from the location of the reentrant circuit.

Attempts to suppress premature ventricular impulses have been of limited prophylactic value. Since the electrophysiologic substrate is essential for the genesis of the arrhythmia, recent treatment has been directed at the reentrant circuit. The revolution time in a reentrant circuit is determined by its length and by the electrical properties of the tissue. Since reentrant circuits in ventricular tachycardia probably are microscopic in size, the revolution time is a function of the electrical properties of the tissue. Approaches to treatment, therefore, can be directed either at the alteration of the functional electrical properties of the reentrant circuit or at ablation of the circuit. Antiarrhythmic drugs alter the functional properties of the tissue and owe their efficacy to the electrophysiologic changes that are induced by them. Another modality, cardiac pacing, seeks to alter the electrical properties of the circuit by the use of electrical impulses to depolarize cells forming part of the circuit preventing propagation of circus movement. Surgical therapy, in contrast, has been directed towards direct ablation of the electrophysiologic substrate.

THE ROLE OF THE CLINICAL ELECTROPHYSIOLOGY LABORATORY

Cardiac catheterization techniques in a special electrophysiology laboratory have provided the clinical setting where electrical stimulation techniques with electrode catheters can be applied directly to the human heart. In the clinical electrophysiology laboratory, cardiac arrhythmias can be provoked by these techniques. In 1969, Durrer and his colleagues demonstrated the induction of reentrant supraventricular tachycardia utilizing premature atrial or ventricular beats in a patient with the Wolff-Parkinson-White syndrome. Extending the initial studies on supraventricular arrhythmias, Wellens et al. demonstrated the induction of ventricular tachycardia in the clinical electrophysiology laboratory in patients with spontaneous recurrent sustained ventricular tachycardia.6 Subsequently, electrical stimulation techniques have increased in complexity and sophistication and, at the present time, reproducible initiation of sustained ventricular tachycardia is possible in 96 percent of the patients.7 Once the arrhythmia has been produced, the effects of various interventions on the arrhythmia can be assessed directly. Thus, the electrophysiologic study (EPS) is used to guide antiarrhythmic therapy, choose a cardiac pacemaker, or localize the site of the reentrant circuit for possible cardiac surgery. In subsequent sections of this article, we shall discuss specific examples of patients undergoing each form of therapy and the strengths and limitations of the current approaches of management.

Figure 1 demonstrates the induction of ventricular tachycardia by programmed electrical stimulation techniques. A premature impulse is introduced at a predetermined interval and gradually is placed earlier in steps of

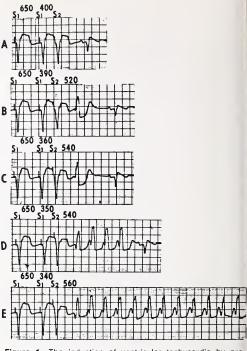


Figure 1—The induction of ventricular tachycardia by programmed electrical stimulation techniques. S_1 = Constant ventricular pacing stimuli; S_2 = Premature ventricular extrastimulus (intervals are in msec).

10 to 20 msec (Figure 1A). In this instance, the impulse elicits a single repetitive ventricular response (Figures 1B and 1C). Further prematurity of the impulse results initially in the induction of a nonsustained episode of ventricular tachycardia (Figure 1D), and subsequently results in the induction of sustained ventricular tachycardia (Figure 1E). This illustration underscores the necessity of the combined critical conditions of conduction delay and conduction block necessary for the establishment of a sustained reentrant arrhythmia. Also, it underlines the need for careful and detailed stimulation procedures for induction of the arrhythmia. Studies from various centers have attested to the fact that the induced arrhythmia reproduces the clinical arrhythmia in 95 percent of instances.8 However, as stimulation procedures have increased in complexity, the characteristics of the induced arrhythmia also changed. For example, we have observed acceleration and morphologic changes in the induced rhythm by using increasingly aggressive stimulation routines.9

At times, stimulation from multiple sites in either ventricle may be necessary to initiate the arrhythmia. Figure 2 il-lustrates failure of induction of ventricular tachycardia with right ventricular stimulation, whereas left ventricular stimulation in the same patient produced sustained ventricular tachycardia. Approximately 30 percent of patients will require left ventricular stimulation procedures to initiate the arrhythmia.

In establishing a plan of treatment for recurrent sustained ventricular tachycardia, it is important to correct obvious precipitating factors, such as ischemia, drugs, electrolyte

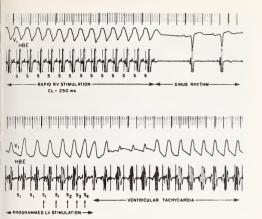


Figure 2—The failure of induction of ventricular tachycardia with right ventricular stimulation. HBE = His bundle electrogram.

imbalance, and hypoxia. After a decision to initiate therapy is taken, the alternatives available include conventional and experimental antiarrhythmic drugs, specially designed pacemakers, and surgical ablation. Actual patient histories at Newark Beth Israel Medical Center will illustrate these modes of therapy.

CASE REPORT 1

A 39-year-old obese, white male was admitted to another hospital in September, 1981, because of prolonged precordial discomfort. An acute anterolateral myocardial infarction subsequently evolved. In the second week of hospitalization, an episode of sustained ventricular tachycardia resulting in near syncope was noted; the patient was treated with procainamide 6 gm/day, diisopyramide 1200 mg/day, and quinidine 1200 mg/day, singly and in various combinations with little success. When he continued to exhibit repeated episodes of ventricular tachycardia, he was transferred to Newark Beth Israel Medical Center for further management.

All antiarrhythmic therapy was withdrawn prior to electrophysiologic study. Ventricular tachycardia occurred spontaneously and also was induced in the clinical electrophysiology laboratory (Figure 3A). Quinidine at serum levels of 5.2 mg/ml permitted the induction of occasional repetitive beats (Figure 3B), but neither sustained nor nonsustained ventricular tachycardia was inducible. He was maintained on oral quinidine gluconate 3.2 gm/day with peak serum levels of 6.8 mg/ml and trough serum levels of 5.3 mg/ml. There has been no recurrence of the arrhythmia during followup.

This case illustrates the selection of effective antiarrhythmic therapy guided by electrophysiologic studies and pharmacokinetics. Not infrequently, antiarrhythmic drugs considered ineffective by empiric methods are found to be adequate by this approach, because at times high-dosage therapy may be required. Careful evaluation of the drug effects on other cardiac tissues such as the sinus or AV node must be appraised during the electrophysiologic study. Also, it is a matter of concern that some electrophysiology centers report that antiarrhythmic agents actually may worsen the arrhythmia in 20 to 25 percent of cases. Empirical selection cannot identify these effects, whereas electrophysiologic studies do.

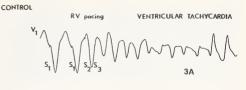




Figure 3A—Successful induction of ventricular tachycardia in the absence of drug therapy. Figure 3B—Successful control of ventricular tachycardia induction on quinidine therapy.

CASE REPORT 2

A 60-year old white male, admitted to another hospital in November, 1980, for an inferior wall myocardial infarction. developed frequent bouts of sustained ventricular tachycardia. When medical regimens, including quinidine (1.6 gm/day), procainamide (3 gm/day), and propranolol, resulted in no improvement, he was transferred to Newark Beth Israel Medical Center, Cardiac catheterization revealed moderately impaired left ventricular function, an inferior left ventricular aneurysm, and total proximal right coronary artery occlusion. Electrophysiologic study (EPS) demonstrated inducible ventricular tachycardia at a rate of 150 per minute with right bundle-branch morphology. The arrhythmia easily could be terminated by rapid right ventricular pacing. Electrophysiologic evaluation of conventional therapeutic agents revealed a partial response to procainamide. At a serum level of 13.9 mcg/ml, the arrhythmia was slower, but still inducible and sustained. The patient developed serious neurologic side effects with higher drug levels, and therefore procainamide was discontinued. Therapy with an investigational antiarrhythmic agent, amiodarone, was instituted. Repeat EPS revealed induction of nonsustained ventricular tachycardia. A treadmill exercise stress test demonstrated induction of ventricular tachycardia at maximal exercise only. A special antitachyarrhythmia pacer programmed to deliver a specific train of pacing impulses, previously determined from EPS, was implanted. A special overdrive device activated by the patient was placed over the pacemaker pulse generator. Figure 4 demonstrates the ability of this pacemaker to terminate the ventricular tachycardia. In this case, a decremental pacing mode terminated the arrhythmia.

This patient was refractory to all conventional and one investigational antiarrhythmic agent. Since the patient was hemodynamically stable, aware of his arrhythmia, and a reliable individual, a patient-activated, antitachyarrhythmia pacemaker was implanted that since has proved to be clinically effective.

CASE REPORT 3

A 46-year-old diabetic schoolteacher was admitted to another hospital for treatment of a perforated peptic ulcer. While awaiting emergency surgery in a preoperative area, he experienced cardiac arrest due to ventricular fibrillation and then was transferred without surgery to the coronary care

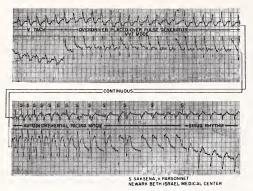


Figure 4—Pacemaker termination of ventricular tachycardia.

unit, where ventricular tachycardia and fibrillation recurred. Myocardial injury was detected. Subsequently, repair of a perforated peptic ulcer was performed, but recurrent ventricular tachyarrhythmias were noted. Cardiac catheterization demonstrated advanced triple vessel coronary artery disease. Coronary artery bypass surgery was offered and accepted by the patient; he was transferred to Newark Beth Israel Medical Center.

Preoperative EPS were performed. After arrhythmia induction, endocardial mapping localized the site of the arrhythmia to the anteroapical left ventricle. After arrhythmia induction, intraoperative epicardial mapping with hand-held electrodes confirmed the site of origin of the arrhythmia (Figure 5A). A large subendocardial scar was resected. Postoperative EPS demonstrated that ventricular tachycardia no longer was inducible (Figure 5B). The patient was discharged and has remained free of symptoms without antiarrhythmic therapy.

Surgical resection of the site of origin of ventricular tachycardia is becoming an increasingly attractive therapeutic alternative. Unlike the poorly successful blind resections of the past, surgical resection of the arrhythmogenic area guided by electrophysiologic mapping has a success rate of over 85 percent.¹⁰ The avoidance of life-long antiarrhythmic therapy is a great advantage of this type of surgical approach.

Several surgical techniques presently are in vogue. A mapping-guided subendocardial resection with or without aneurysmectomy has been advocated. Dendocardial tissue 1 to 2 mm thick, at the perimeter of an aneurysm or myocardial scar, is lifted off and resected at the site of arrhythmogenesis. Alternative procedures include a transmural ventriculotomy and, more recently, an encircling endocardial ventriculotomy along the limits of endocardial fibrosis that separate normal and abnormal myocardium. Cryosurgical ablation of these arrhythmogenic foci also has been attempted successfully. Description of these arrhythmogenic foci also has been attempted successfully.

Presently, we recommend surgical intervention to patients who have failed to respond to medical or pacemaker therapy or to patients undergoing cardiac surgical procedures for other clinical indications, such as valve replacement and bypass surgery in patients with concomitant ventricular tachycardia.

COMPLICATIONS OF ELECTROPHYSIOLOGIC STUDIES

From December, 1980, to October, 1981, 31 patients with



Figure 5A—Intraoperative epicardial mapping with hand-held electrodes confirms the site of origin of the arrhythmia.

BEFORE SUBENDOCARDIAL RESECTION

R V pacing VENTRICULAR TACHYCARDIA

AFTER SUBENDOCARDIAL RESECTION



Figure 5B—Postoperative EPS demonstrating induction of ventricular tachycardia. Postoperative EPS demonstrated that ventricular tachycardia no longer was inducible.

recurrent ventricular tachycardia underwent a total of 73 EPS at Newark Beth Israel Medical Center (average 2.3 studies per patient). All patients underwent baseline EPS after antiarrhythmic drugs were discontinued. The mean duration of the initial study was 159 minutes. Most patients required followup EPS for titration of specific drugs. The mean duration of followup studies was 50 minutes. During 73 electrophysiologic procedures, there were 10 episodes of induced ventricular tachycardia or ventricular fibrillation requiring electrical cardioversion (incidence: 13.7 percent). Local complications due to prolonged electrode catheter placement for serial studies were noted in 7 patients (incidence; 9.6 percent). There have been no major or systemic complications and no deaths in over 250 studies performed at this institution. These data demonstrate that carefully controlled EPS can be performed safely with minimal complications.

LONG-TERM THERAPY OF VENTRICULAR TACHYCARDIA

Regimens for long-term therapy based on EPS were designed in these 31 patients. The followup period has ranged from 3 to 15 months (mean: 9 months). There have been five deaths (CHF: one, cerebrovascular accident: two, sudden death: one, and myocardial infarction: one). In only 1 patient could an arrhythmic event be implicated. There have been three rehospitalizations unrelated to the arrhythmia.

IMPACT ON HEALTH CARE SYSTEM

Recently, we reviewed hospitalization cost data from 20

patients with recurrent ventricular tachycardia to assess the impact of this approach on the health care system. The duration of the arrhythmia ranged from one to ten years (mean: 1.95 years). Prior to EPS, it was estimated that mean hospital stay was 50.5 days per patient year, but after EPS the mean hospital stay was 2.4 days per patient year. This suggests an important reduction in patient morbidity and mortality with this approach to selection of therapy.

SUMMARY

Recurrent paroxysmal ventricular tachycardia associated with acquired heart disease is an important problem. It has served as a model for understanding the mechanisms of ventricular arrhythmias and sudden cardiac death. Animal and clinical studies have corroborated the reentrant nature of this arrhythmia, indicating that this is a disorder of impulse conduction. Antiarrhythmic drugs alter the properties of the reentrant circuit by manipulating the electrophysiologic properties of the cells constituting the circuit. Electrophysiologic studies are of considerable utility in selecting effective agents. Cardiac pacing can be utilized for termination of the episodes of the tachyarrhythmia. Patient activated and automatic pacemakers now are available for implantation at specialized centers based on electrophysiologic studies. Cardiac surgery directed at ablating the reentrant circuit guided by preoperative and intraoperative cardiac mapping has been highly successful.

Electrophysiologic studies are time consuming and personnel intensive. Laboratory induction of serious cardiac arrhythmias is frequent. EPS should be performed only in specialized laboratories with highly trained personnel. Results of long-term therapy based on electrophysiologic studies are very promising, though underlying cardiac disease remains a limiting factor. A marked reduction in hospitalizations due to the cardiac arrhythmia is noted in patients who are treated with this approach. We believe that an aggressive and carefully designed electrophysiologic approach to the management of patients with recurrent ventricular tachycardia can be most effective. A substantial improvement in the prognosis of this malignant disorder now appears to be a reality.

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nonsusceptions organisms. Careful observation of the patient essential. If Superindection occurs during therapy, appropriate measures should be taken.

Positive direct Coombis tests have been reported during treatment with the cephalosporin antibiotics in hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coomb antipulous hests are performed on the immor side or in Coomb testing of neutron wissoe mitness have received explanlasgorin antibutics before partiarition, it should be recognized that a positive Cooms lest may be due to the drug Coctor should be administered with caution in the presence of markedly impaired real frauchir. Under such a condition, careful principal coloration and absolutory studies should be made elihecal december and an absolutory studies should be made to the commendation of the commendation and the commendation of the

As a result of administration of Cector, a false-positive react for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, 1889, 1890).

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Hematopoietic — Transient fluctuations in leukocyte count predominantly lymphocytosis occurring in infants and young children (1 in 40).

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A Health Knowledge Questionnaire **Survey for Senior Citizens**

MARIAN R. STUART, Ph.D., HAROLD KALLMAN, M.D., HARRIS S. GOLDSTEIN, M.D., Piscataway*

A health knowledge questionnaire focusing on topics of health maintenance in the elderly revealed that senior citizens at nutrition centers are a fairly knowledgeable group. However, they have serious misconceptions in areas where presentation of illness or response to conditions are peculiar to the elderly.

he elderly are the most rapidly growing segment of the United States population,1 The advanced elderly are growing in numbers even faster and are occupying an increasing segment of physicians' time.2 As more people approach the maximum life span, chronic disease supersedes acute illness in causing disability and lowered quality of life.3 To maximize health in elderly individuals, senior citizens need to share the responsibility for maintaining their physical and emotional well being. Good health care requires that the elderly have accurate information which will help them institute effective measures for the prevention of chronic disease and for maintaining healthy functioning.

The Department of Family Medicine, UMDNJ-Rutgers Medical School in cooperation with the New Jersey Academy of Family Physicians decided to determine the accuracy of the information that older people possessed regarding certain health issues and to explore ways of increasing this knowledge.

BACKGROUND

A recent article by Coope and Metcalfe described a multiple-choice examination probing levels of knowledge of personal preventive medicine, treatment, and appropriate use of health services in a population of patients in a physician's waiting room.4 Results showed that in the population sampled, which was biased toward younger individuals and those who were willing to fill out the questionnaire, the amount of health care knowledge was related to social class and that there was a distressing degree of ignorance in some areas. We speculated that in a geriatric population, lack of knowledge or misinformation would be more prevalent because of educational and/or socioeconomic deficits.

A format was sought whereby a valid multiple-choice examination could be constructed and administered to a representative group of relatively healthy elderly individuals.

METHOD

After extensive physician interviews and trial surveys of members of the UMDNJ-Rutgers Medical School Family Medicine faculty, a list of topics germane to the elderly was devised. A questionnaire listing 30 topic areas was sent to 169 practicing family physicians-members of the UMDNJ-Rutgers Medical School clinical faculty and/or active members of the New Jersey Academy of Family Physicians. The physicians were asked to choose the "10 most important areas (out of the 30 listed) where accurate information was essential for the maintenance of maximal health and functioning in a geriatric population."

^{*}From the Department of Family Medicine, UMDNJ-Rutgers Medical School, Piscataway, where Dr. Stuart is Adjunct Assistant Professor and Dr. Goldstein is Associate Professor; and from the East Carolina University School of Medicine, NC, where Dr. Kallman is Director of Geriatric Training. Correspondence may be addressed to Dr. Stuart, UMDNJ-Rutgers Medical School, P.O. Box 101, Piscataway, NJ 08854.

A total of 122 physicians returned questionnaires. One hundred eighteen questionnaires were usable for a net usable return rate of 71 percent. Questionnaire results are shown in Table 1.

Employing the areas ranked highest by the physicians, Harold Kallman, M.D., developed a 12-item, multiple-choice questionnaire in cooperation with the Office of Consumer Health Education of UMDNJ-Rutgers Medical School. This questionnaire was based on the 10 topics receiving the highest ranks by physicians plus 2 additional questions dealing with smoking and exercise. The latter areas were included because it was felt that they represented areas in which accurate information made it especially possible for older persons to affect their health and functioning. In constructing each of the 12 multiple-choice questions, every effort was made to include common misconceptions in the alternative answers.

DATA COLLECTION

Ten Most Frequent To

Marian R. Stuart, Ph.D., arranged to present a program on health education at all eight nutrition sites (congregate lunch programs under Title III of the Older Americans Act) in Morris County, which has a population of 56,000 persons over the age of 60. Thus, the sample was representative of senior citizens using this type of service.

After a brief talk that emphasized physician concerns with the health of older people, the questionnaire was distributed. Questions and each of the four possible answers were read aloud and participants were instructed to circle the one correct answer. All questions were repeated carefully with the pace of the examination geared to their rate of answering the questions.

TA	BLE 1			
pics	Selected	By Family	Physicians	

Rank		ber of sicians
1	Heart disease	92
2	Depression: Prevention and cure	82
3	Basic nutritional requirements	81
4	Arthritis	77
5	Strokes	64
6	High blood pressure	64
7	Drug therapy, compliance, interactions	64
8	Community resources	57
9	Symptomatology of common disease in old persons	der 55
10	Constipation, eructation, and flatulence	51

In order to put possible differences in health knowledge into a meaningful context, demographic data (such as age, whether they lived alone, had a family doctor, and had health concerns) were requested. Participants also were asked whether they had been confined to their home because of ill health or had been hospitalized during the past year. After collection of the questionnaires, each potential answer was discussed thoroughly and participants were free to ask for further information. The response was active and the program, originally scheduled for 30 minutes, lasted almost one hour. Participants enthusiastically followed the indepth discussion of each potential wrong answer as well as the correct answer.

RESULTS

Three hundred fifteen questionnaires were collected. However, in spite of the care in administration, many participants did not answer all questions. In some cases participants completed the test and did not give the demographic data; others answered a few questions but gave complete answers to the final part. Consequently, the number of responses varied from question to question.

Six percent of the participants responding were over age 85; 37 percent were between the ages of 75 and 84; 41 percent were between the ages of 65 and 75; 16 percent were between the ages of 55 and 65. Of the remainder, 22 individuals did not state their age group. Table 2 shows the percentage breakdown of demographic data and health status by age group. No significant differences were found between people living alone and people not living alone for frequency of hospitalization or confinement to home for reason of illness during the previous year.

Only questions where a single answer had been circled were valid. No one answered all questions correctly. Table 3 shows the total number of questions correct by age group. Chi Square analysis shows significant differences in total numbers correct between age groups. As can be seen from Table 3, the 65- to 74-year-old group had the largest percent correct. The 55- to 64-year-old group was underrepresented in the high scores, yet half of the over 85 age group had at least five questions correct, and more than half of the over 75 age group had six questions correct.

In terms of single correct answers, 74 percent knew community services are available when asked for and accepted; 71 percent knew when a person stops smoking, breathing improves. Sixty-nine percent correctly identified a good diet; and 66 percent knew that older people often get indigestion because they do not chew their food enough. Fifty-five percent responded that improvement in general health aids recovery after a stroke; 52 percent recognized that

 TABLE 2

 Responses by Age Group Concerning Living Arrangements and Health Status

				Percent of Age Group		
Respondents	Factor	Percent	55+	65+	75+	85+
280	Live alone	65	56	61	72	81
286	Have relative can call for help	91	89	89	92	94
283	Have family doctor	86	77	86	89	93
270	Concerned about health problems	47	47	50	44	53
276	Confined to home for illness	19	15	19	20	27
289	In hospital past year	24	24	23	23	30

TABLE 3

Correct Answers by Age Group*

	0011601	Allowold	by Age c	ii oup	
Number of Respon- Number of Questions Correct Age dents 0 to 2 3 to 5 6 to 8 9 to 11					
55 to 64	47	2	9	25	11
65 to 74	121	9	27	54	31
75 to 84	109	9	37	56	7
85+	18	6	7	4	1
Total	295	26	80	139	50
	(100%)	(8.8%)	(27.1%)	(47.1%)	(17.0%)
*Chi Squa	re = 36.9,	df = 9, P	= <0.001		

arthritis may improve with better diet, proper exercise, and rest; and that regular walking may retard aging. Forty-six percent realized that depression often appears as feelings of ill health and weight loss; only 41 percent answered that blood pressure could be lowered through weight loss; only 26 percent correctly answered the medication question regarding the use of over-the-counter drugs; only 21 percent realized that in older people low body temperature is common and may be dangerous; and only 18 percent were aware that heart attacks may cause sudden confusion in the elderly.

There were several prevalent misconceptions. Over 58 percent of the subjects responded that heart attacks always cause severe chest pain and 55 percent thought that every physical complaint requires special medication. Forty-six percent thought that diabetes usually requires insulin, and 36 percent thought blood pressure should be 100 plus the person's age. There also were many who had misconceptions regarding the use of iron in treating anemia, the safety of aspirin, and the prevalence and possible causation of depression.

DISCUSSION

Looking at the demographic data, the most interesting finding was the gradual increase in the percentage of people having a family doctor as age increased. The relationship between age and the individual's concern about health problems was not so clear. There was no relationship between age and health problems until the over 85-year-old group was reached, although 47 percent of this age group still stated that they had no serious health concerns.

In areas of general health knowledge, the elderly are fairly knowledgeable. Frequently missed questions were in content areas where there is substantial variation in the disease pattern from younger to older age groups. This may reflect that magazines, television, and newspapers report most frequently on these conditions as experienced by a younger population. Fortunately, at least in the case of depression, about half of the elderly are aware depression may present as somatic symptoms, which is more typical for the elderly.

Hypothermia and silent infarct are most common in the elderly, yet this sample shows a marked lack of knowledge of these facts. It may be speculated that these conditions frequently are not discussed by average physicians with patients.

Looking at which correct conceptions were most prevalent, it appears that a group of older persons attending a nutrition site receive fairly adequate amounts of information regarding community services, nutrition, smoking, and exercise, i.e. the commonly promoted preventive health measures. However, as stated earlier, it needs to be emphasized that in those cases where presentation of disease or response to conditions in the elderly is different from that of younger people, there were serious misconceptions: that chest pain always is present with myocardial infarction, that large and multiple doses of medicine frequently are needed, and that insulin is the only treatment in diabetes. The fact that so many elderly felt that each symptom required a separate medication may contribute to the high use of over-the-counter drugs by this age group.

"The most interesting finding was the gradual increase in the percentage of people having a family doctor as age increased."

While no single question can define the totality of knowledge in each of the specific areas of concern, it appeared that the participants had serious misconceptions concerning hypertension, presentation of common disease, myocardial infarction, and drug therapy. The need for greater emphasis by physicians in the area of patient education for conditions common to the elderly is supported by these findings.

SUMMARY

Good health for the geriatric population requires accurate information to help the elderly institute effective measures for the prevention of chronic disease and the maintenance of healthy functioning.

A health knowledge questionnaire, focusing on 12 topic areas chosen by 122 family physicians as important for health maintenance in the elderly, was used as a focus for a program on health education at eight congregate nutrition sites for senior citizens. The completed multiple-choice examination and demographic and health status data were collected from 322 participants. Significant differences were found among age groups, with the 65- to 75-year-old group being the best informed. Age and concern with health problems were not related except in the group over age 85.

Participants were fairly knowledgeable concerning exercise, smoking, arthritis, strokes, indigestion, nutrition, and the availability of community services. However, information deficits concerning hypertension, presentation of common diseases, myocardial infarction, drug therapy, and depression were noted.

Since 85 percent of the participants had a primary care physician and the most serious misconceptions occurred in areas where presentation of illness or response to conditions are peculiar to the elderly, education by physicians may be indicated.

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STATE OF THE ART

Coronary Arteriography for the Diagnosis and Treatment of Disease of the Coronary Circulation

ROBERT M. MACMILLAN, M.D., Browns Mills*

Coronary arteriography is the standard method for the diagnosis of disorders of the coronary circulation. The most common indication for coronary arteriography is the evaluation of chest pain. When performed by an experienced team, complications are infrequent and mortality is rare. Coronary arteriography now is a therapeutic tool with the advent of percutaneous transluminal coronary angioplasty and thrombolysis during acute myocardial infarction.

¶ linical implementation of the heartlung bypass pump for the surgical treatment of valvular disorders created a climate favorable to the development of more aggressive diagnostic and treatment methods for coronary artery disease. The concept of cardiac revascularization was advanced by the Vineberg procedure. Revascularization was refined by the successful demonstration of venous and arterial grafts used to bypass coronary arterial obstructions. This technique required presurgical visualization of the coronary circulation. Early angiography was performed by aortic root injections (nonselective) that were of limited quality. Recognizing the need for high resolution angiography of the coronary circulation, selective catheterization of the coronary arteries was developed 20 years ago;1 this technique remains the standard for diagnosis of disorders of the coronary circulation.

INDICATIONS FOR CORONARY ARTERIOGRAPHY

Chest pain is the most common symptom leading to the decision to perform coronary arteriography. Cardiac disorders producing chest pain include atherosclerotic coronary disease, (CAD) coronary vasospasm, coronary arteriovenous fistulas, intramyocardial bridges, mitral valve prolapse, coronary anomalies, pericardial disease, cardiac trauma, periarteritis nodosa, asymmetric septal hypertrophy, aortic stenosis, aortic regurgitation, and hypertensive heart disease.²⁻⁶ Though some of these diseases can be diagnosed noninvasively, others cannot; some of these disorders may

coexist. Therapy depends upon determination of the correct etiology for chest pain. When chest pain is known to be secondary to atherosclerotic coronary artery disease, indications for coronary arteriography include: onset of the unstable syndrome; pain following myocardial infarction; chronic stable angina in patients who desire coronary artery bypass for relief of symptoms; and suspicion of left main coronary stenosis or left main equivalent disease (Figure 1). Left main equivalent disease represents hemodynamically critical reduction of coronary blood flow in the most proximal segments of the left anterior descending and circumflex coronary arteries. Left main coronary artery stenosis occurs in 5 percent of all patients with coronary artery disease and 12 percent of patients with unstable angina pectoris.7 Medically treated patients in this group have a four-year survival of 65 percent, while patients treated with aortocoronary bypass grafting have a four-year survival of 95 percent.8 Therefore, coronary arteriography is imperative whenever a patient is suspected of having left main coronary stenosis. Coronary arteriography may demonstrate the etiology for unexplained congestive heart failure, syncope, and malignant ventricular arrhythmias by revealing unsuspected atherosclerotic coronary artery disease where chest pain is absent.

Adults with suspected or established clinically symptomatic valvular heart disease should undergo coronary arteriog-

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Figure 1A—Selective injection of the left coronary artery in RAO 30° projection; a vessel with no stenoses.

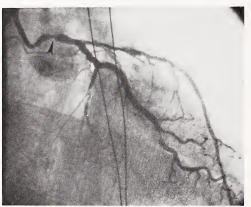


Figure 1B-70 percent left main coronary artery stenosis (arrow).

raphy at the time of cardiac catheterization with few exceptions. Anomalies of the coronary circulation, coronary arteriovenous fistulas, and coronary artery disease often elude clinical suspicion until discovered. Patients under 40 years of age are considered low risk for CAD, especially women; nevertheless it does occur. Failure to recognize a coronary arterial disorder may increase surgical mortality and morbidity during valve surgery and may cause over-estimation of the severity of the valve disorder as interpreted by symptoms. The latter can lead to unnecessary valve surgery and produce incomplete resolution of clinical symptoms. When valve evaluation at the time of catheterization clearly dictates a nonsurgical approach, coronary arteriography may be avoided where it will not contribute to the patient's further management.

Other indications for coronary arteriography include: the postcardiac arrest patient without evolution of myocardial infarction; selected patients in cardiogenic shock where medical therapy has not improved the prognosis; after subendocardial myocardial infarction; after myocardial infarction where chest pain is absent, but other testing indicates continuing ischemia possibly surgically treatable; in selected postcoronary bypass patients; in selected

asymptomatic patients with positive stress tests; and in acute evolving myocardial infarction where it is the intention of the angiographer to employ streptokinase according to a currently accepted protocol.9

COMPLICATIONS OF CORONARY ARTERIOGRAPHY

Coronary arteriography requires catheter introduction via a systemic artery. The two arteries used are the brachial (Sones) and femoral (Judkins). The Sones technique requires surgical cutdown in the median antecubital fossa and arterial repair at termination of the procedure. The Judkins technique is initiated in the inguinal crease using a percutaneous puncture. Complications of coronary arteriography were compiled by the Collaborative Study of Coronary Artery Surgery.10 Data were obtained prospectively on 7,553 consecutive patients undergoing coronary arteriography from 13 participating centers. There were 8 deaths, 0 to 24 hours, and 7 deaths, 24 to 48 hours, after arteriography (2.0/1000). There were 15 nonfatal myocardial infarctions (MIs), 0 to 24 hours, and 4 MIs, 24 to 48 hours, after arteriography (2.5/1000). Left main coronary artery disease increased the risk of death 6.8 times. The brachial artery technique increased the risk of death 3.6 times compared with the femoral approach. There was no difference in mortality for brachial technique when analysis was restricted to laboratories with 80 percent or more brachial procedures. Vascular injury, including arterial thrombosis requiring surgery and arterial dissection or rupture occurred in 0.7 percent. Arterial thrombosis was more frequent secondary to brachial procedures (1.9 percent) versus femoral (0.2 percent). Heparinization did not reduce the risk of thrombosis for either technique. Ventricular fibrillation unrelated to MI occurred during catheterization in 0.63 percent of cases.

The data tend to discourage the use of the brachial route except by angiographers doing more than 80 percent of their cases by this method. This conclusion must be questioned by the experienced angiographer. Ten years ago, a similar study involving 173 hospitals and 46,904 coronary arteriograms revealed the mortality rate by brachial technique to be 0.13 percent versus femoral of 0.78 percent. 11 At that time, the use of the femoral technique was discouraged. The Society for Cardiac Angiography reported on complications associated with cardiac catheterization through its registry in 53,581 patients.12 Mortality varied by age: 1 year (1.75 percent), 1 to 60 years (0.07 percent), and >60 years (0.25 percent). Left ventricular ejection fraction was a determinant of mortality: 0.05 percent (EF 50 percent), 0.23 percent (EF 30 to 40 percent), and 0.74 percent (EF 30 percent). Mortality increased with the number of diseased coronary vessels: 0.03 percent (1 vessel), 0.05 percent (2 vessels), 0.16 percent (3 vessels), and 0.86 percent (left main). In conclusion, the mortality from cardiac catheterization is related closely to left ventricular function, age, and the number of coronary vessels diseased. Less clear is the role that the brachial and femoral techniques have in affecting mortality. It is my opinion that cardiac catheterization in the hands of properly trained and skilled arteriographers is a safe procedure irregardless of the method used.

DETERMINATION OF SIGNIFICANT STENOSIS OF THE ATHEROSCLEROTIC CORONARY ARTERY

Coronary atherosclerosis produces reductions in coronary blood flow with increasing severity of the stenosis. The

angiographer routinely grades severity of stenosis based upon a control inner arterial diameter arbitrarily assigned by appearance to be "normal." This segment usually is just distal or proximal to the stenosis, when those adjoining segments appear of uniform contour. In some cases, no normal segment can be distinguished clearly, decreasing the reliability of any estimate of luminal reduction. The diameter across the narrowest point of stenosis is expressed as a percent reduction based upon the control segment. Autopsy data reveal the best stenotic estimate to be achieved when the stenosis to be measured is taken as the "narrowest" seen by various cine angles photographed. The magnitude of relative flow reduction necessary to cause symptomatic ischemia is not well defined, although ischemic contractile abnormalities appear at about 50 percent of basal flow.13 Factors determining flow limitation include degree of reduced lumen diameter, length of stenosis, consecutive stenoses, blood viscosity, arterial pressure, collateral development, divergence angle at the distal end of stenosis (separation loss), and capacity of peripheral bed to autoregulate.14.15 Animal and human data in the basal state reveal coronary flow reduction when the cross-sectional area is reduced by 85 percent which corresponds to a 61 percent diameter reduction.14 The commonly accepted criteria for a significant degree of coronary arterial stenosis is based upon 60 percent diameter reduction though some groups prefer 80 percent diameter reduction. 16,17 The data are derived in the basal state. The effects of exercise with greater supply-demand gradients are not well established and cannot be assumed to be a linear function. Long segments of stenosis have been shown to have a significant effect upon flow in arterial segments with 40 to 60 percent diameter reduction.18 The criteria of diameter reduction in relation to coronary flow must be regarded as arbitrary, even with the best system available. Clinical decisions should not be based solely upon this criteria when diameter reduction is less than or equal to 60 percent.

OBSERVER VARIABILITY IN INTERPRETATION OF CORONARY STENOSIS

Having defined the criteria for evaluating stenotic segments, one is faced with a subjective estimate that may vary between observers.19 DeRouen compared the interpretations of 10 cines by 11 readers and found significant interobserver variability.20 From their report, the following observations were made: 1) the vessel segments that seem to cause the most discrepancies are the diagonal, distal half of the left anterior descending, and distal third of the right coronary artery; 2) if two standard deviations above and below a single reading of the amount of stenosis in a vessel segment are used to indicate the precision of that reading, then this corresponds to ± 36 percent; 3) examinations of high technical quality are important, especially with severe disease; 4) there is a strong tendency to interpret nonvisible segments as either normal or completely occluded; 5) the amount of recent experience in reading arteriographs probably is the most important characteristic in determining the accuracy of the reader; and 6) the probability of misclassifying an individual as far as the number of vessels with at least 70 percent stenosis is about 31 percent. DeRouen recommended that 3 independent readers routinely should assess each case.20 Galbraith found that using three independent cardiologists to review films produced correlation by pathologic examination of stenotic severity 82 to 84 percent of the time when noteworthy lesions were regarded as having greater than 50 percent diameter reduction.21 In the cases found to be incorrectly estimated, two of three observers were wrong 50 percent of the time. This fact compromises the majority opinion concept on cases where unanimity is lacking. Analysis of inter- and intraobserver variability was done by the VA Cooperative Study of Surgical Treatment of Coronary Arterial Occlusive Disease.²² They found that angiographic items about which observers were most inconsistent from one reading to the other had the largest interobserver disagreement as well. They found some individual readers to be very consistent in all cases and others rarely. Part of this correlated with the experience of the reader.

CORONARY VASOSPASM

Certain patients subject to intermittent chest pain, at night, often have been demonstrated to have nonatheromatous intermittent coronary obstruction described as vasospasm. The focus of vasospasm may occur at the point of a hemodynamically nonsignificant or significant atheroma or in an apparently normal coronary segment (Figure 2). ST segment elevation on the electrocardiogram during chest pain accompanied by angina pectoris (Prinzmetal variant angina) with reversion to normal baseline with termination of pain has been a hallmark of coronary vasospasm. Coronary vasospasm-induced angina may occur in the absence of electrocardiographic changes.23 We observed a case of coronary vasospasm in the absence of electrocardiographic changes and chest pain following the administration of ergonovine 200 µg (Figure 3). Factors provoking "spontaneous" coronary vasospasm include exposure to cold air, ingestion of cold liquids, exercise, and the cold pressor test. The cause of spontaneous coronary vasospasm including the sleep-associated variety remains speculative. Ergonovine maleate first was used by Stein for diagnosis of coronary insufficiency in patients with chest pain',24 Ergonovine maleate has been found to be highly sensitive and specific in detection of coronary vasospasm. In 112 patients from 12 institutions with Prinzmetal variant angina and normal coronary arteriograms, the ergonovine test was positive in 110 patients (98 percent) and negative in 15 control patients.25

Coronary vasospasm, whether spontaneous or provoked, can be associated with major arrhythmias (complete heart block, ventricular tachycardia, or fibrillation and asystole).26,27 It is recommended that a transvenous pacemaker be positioned in the right ventricle prior to ergonovine use. Ergonovine is administered intravenously as a 50 µg bolus every 3 to 5 minutes up to 200 µgs. Since coronary vasospasm may produce no ST segment shift and no pain, coronary arteriography must be performed after ergonovine. Ergonovine can cause intense vasospasm not responsive to sublingual or intravenous nitroglycerin (NTG); intracoronary NTG must be available. Therefore, this procedure must be done in the cardiac catheterization laboratory.28 Indications for provocative testing with ergonovine include patients with normal or hemodynamically nonsignificant stenoses who have: ST segment elevation or T wave changes during chest pain; major arrhythmias or syncope during chest pain; a normal ECG during chest pain, but a history strongly suggestive of angina; left bundle-branch block or pacemaker rhythm and chest pain at rest; and chest pain at rest, but in whom no ECG has been obtained during pain.26,29 Contraindications to use of the test include the finding of: acute myocardial infarction, uncontrolled chest pain, uncontrolled ventricular arrhythmias, amenorrhea in a premenopausal female, severe hypertension, severe left ven-

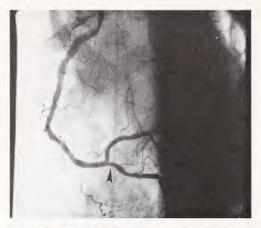




Figure 2—Selective injection of the right coronary artery in the LAO 60° projection. A—Note the normal caliber at the origin of the posterior descending coronary artery (arrow). B—Following ergonovine maleate $100~\mu g$ IV, an 80 percent focal stenosis is observed at the origin of the posterior descending coronary artery (arrow). This event was associated with chest pain, but no electrocardiographic abnormalities.

tricular dysfunction, severe aortic stenosis, and significant left main coronary disease (>50 percent diameter reduction). A relative contraindication is >90 percent stenosis of a major epicardial artery.²⁹

MYOCARDIAL BRIDGES

The myocardial bridge (Figure 4) refers to a systolic constriction of a segment of the left anterior descending coronary artery (LAD) that is embedded in the myocardium for a variable distance. The constriction is not present during disastole. Portsmann and Iwig first described this in 1960.30 The angiographic incidence has been reported to be between 0.51 percent and 5.4 percent with the lowest estimate derived from the largest patient sample group.31-33 Noble et al. graded the severity of systolic narrowing as grade 3 (>75 percent), grade 2 (50 to 75 percent), and grade 1 (<50 percent).31 Patients with grade 2 and 3 systolic constriction have been documented to have ischemic ECG changes during atrial pacing at heart rates of 150 bpm associated with

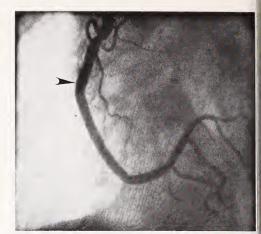




Figure 3—Selective injection of the right coronary artery in the LAO 60° projection A—Before ergonovine maleate. B—After 200 μg of ergonovine maleate IV. Observe the 60 percent stenosis in the postergonovine injection (arrow) as compared to the identical coronary segment in the preergonovine injection (arrow).

angina. Some of these patients were found to have lactate production during angina and decreased great cardiac vein flow despite increased coronary sinus flow.^{31,34} Of further significance in diagnosis of myocardial bridges is the report by Morales et al. documenting sudden death in three young healthy individuals during strenuous exercise.³⁵ Autopsy in all three individuals revealed patchy ischemic necrosis of the anterior myocardial septum corresponding to the distribution of the LAD distal to myocardial bridges.

CORONARY ARTERIOVENOUS FISTULAS

A coronary arteriovenous fistula may be defined as an abnormal communication of the distal coronary artery in the presence of a normal origin. Sakakibara has divided them into types based upon the chamber into which they drain. In most cases, the fistula drains into the right atrium, right ventricle, or pulmonary artery. Cases have been reported of drainage into the coronary sinus. Ieft atrium, and left

ventricle.33 The majority of coronary AV fistulas are associated with continuous or purely diastolic murmurs.38,39 Most of these fistulas transport a quantity of blood sufficient to lower aortic diastolic pressure and widen the pulse pressure. Ten cases have been reported with angina pectoris as a prominent element of the clinical picture.38,40 Among infants, congestive heart failure and pneumonia are the primary causes of death41 whereas bacterial endocarditis is the predominant factor in children and young adults.42 In patients over the age of 40, congestive heart failure again predominates.43 Coronary arteriography is the only method for establishing an ante-mortem diagnosis of coronary AV fistula and should be considered in the evaluation of unexplained angina, heart failure, bacterial endocarditis, or characteristic heart murmur. Iatrogenic coronary arteriovenous fistulas have been created by coronary artery bypass surgery with anastomosis to the anterior interventricular vein. A continuous murmur not present prior to surgery and a widened aortic pulse pressure lead to arteriography and confirmation of the diagnosis. Traumatic coronary arteriovenous fistulas have been reported.44,45

ANOMALIES, VARIANTS, AND ANEURYSMS OF THE CORONARY CIRCULATION

Anomalies of the coronary arteries are rare. In a series of 18,950 autopsies, 41 instances of coronary artery anomalies were found. Abnormal origin of coronary arteries have occurred from the pulmonary artery, another coronary artery, abnormal location within the aorta, and other less frequently seen sites. An another less frequently seen sites, and left atrial myxomas have been demonstrated by selective coronary arteriography. Aneurysms of the coronary arteries may be seen secondary to congenital defects, arteriosclerosis, mycotic emboli, syphilis, infectious arteritis, necrotizing arteritis, and trauma.

PERCUTANEOUS TRANSLUMINAL CORONARY ANGIOPLASTY (PTCA)

Grüntzig et al. introduced a nonsurgical alternative to the treatment of fixed obstructive coronary artery disease,55 Patients best suited for this procedure have single, focal, proximal, and noncalcified atheroma in one of the three major coronary vessels or the left main coronary artery. The obstruction to be dilated should have been perfused with intracoronary nitroglycerin to eliminate any degree of spasm as a factor in contributing to the stenosis. The coronary artery is catheterized selectively and a smaller catheter with an inflatable balloon on its distal end is advanced into the lumen of the artery and positioned across the stenotic segment. The pressure gradient across the stenosis is measured. The balloon is inflated from 4 to 8 atmospheres of pressure for 7 to 12 seconds. Repeat angiography and pressures are recorded (Figure 5). The procedure is terminated when peak inflation pressures yield no further pressure gradient changes, when the gradient disappears, and/or when no significant stenosis remains visually. The National Institute of Health, Heart, Lung, and Blood Section Registry has catalogued the results of 1,897 cases with 2,007 dilatations. 56 Sixty-four percent (1,291 of 2,007) of dilatations were successful, i.e. 20 percent increase in luminal diameter. The mean decrease in stenosis was 32 percent. Inability to pass the stenosis with the catheter occurred in 24 percent of cases (498/2,007). Factors preventing catheter placement across stenosis included: coronary ostial stenosis; ostium of a vein



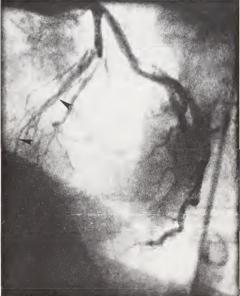


Figure 4—Selective injection of the left coronary artery in the LAO 60° projection. **A**—During diastole the left anterior descending coronary artery is of normal caliber (arrow). **B**—During systole it has become constricted markedly in its middle third (arrows).

graft; too-tight stenosis; bend too sharp to negotiate catheter into proper vessel; and technical factors. Complications occurred in 21 percent of cases and included: coronary spasm; prolonged angina; myocardial infarction; hemorrhage; pseudoaneurysm; coronary embolism; ventricular

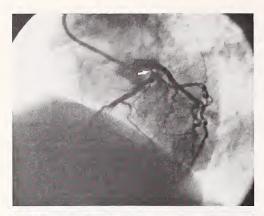




Figure 5—Left coronary injections in LAO 50° projection. A—Note the 90 percent stenosis of the proximal left anterior descending coronary artery (arrow). B—Following percutaneous transluminal coronary angioplasty, note the dilatation of the previously stenosed segment (arrow).

tachycardia or fibrillation; hypotension; bradycardia; and peripheral arterial thrombosis. Emergency coronary bypass was performed in 6 percent of cases. Deaths in the hospital attributed to the procedure were 1 percent (19 of 2,007). Data revealed that angiographers' dilatation success rate rose from 50 to 80 percent after the first 100 cases had been performed. The complication frequently declined from 24 to 15 percent with greater than 100 case experiences. Preliminary observations reveal recurrence of stenosis at the dilatation site in 21 percent (28 of 135) of successfully dilated cases followed up to three years.57 The recurrences occurred between two and seven months postdilatation. Twelve of 23 cases were successfully redilated. PTCA offers a significant alternative to coronary bypass surgery in selected cases. The morbidity and mortality versus the success rate are acceptable. The data emphasize reduction in complications can be achieved by proper patient selection and proper training of the angiographer.

INTRACORONARY THROMBOLYSIS DURING ACUTE MYOCARDIAL INFARCTION

Thrombosis in the coronary artery supplying blood to an infarcting myocardial segment occurs in the majority of cases where coronary atheromatous disease is the cause (Figure

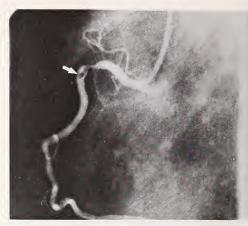


Figure 6—Thrombus (arrow) seen as a filling defect just distal to a 90 percent focal stenosis of a right coronary artery in a patient who had experienced inferior wall nontransmural myocardial infarction six days prior to arteriography.

6).58,59 Coronary arteriography has been applied to the acute myocardial infarction patient to demonstrate the presence and location of thrombus. Streptokinase, a potent fibrinolysin, has been shown to lyse intracoronary thrombus during acute myocardial infarction. 60,61 Patients admitted to a hospital with acute onset of chest pain, preferably with typical electrocardiographic changes, undergo left ventriculography and coronary arteriography to determine the area of infarction and the acutely thrombosed vessel responsible (Figure 7). Intracoronary nitroglycerin or nifedipine is administered to exclude coronary vasospasm. Intracoronary streptokinase is infused at a rate of 2,000 to 4,000 μ /min until the thrombus is dissolved or 250,000 units have been given. Infusions exceeding 250,000 units are associated with excessive bleeding complications. In some cases, thin wire guides have been used to mechanically disrupt thrombus to aid in increased surface contact for the streptokinase. Lysis of thrombus has been correlated with relief of pain, return of the ST segment toward baseline, and improvement in left ventricular hemodynamics. The most critical factor in determining success of this method is the time from onset of infarction to lysis of clot. At present, this time interval should not exceed six hours. Preliminary impressions now suggest early coronary bypass surgery for those patients successfully lysed who are candidates as thrombosis has recurred. Percutaneous coronary transluminal angioplasty has been done immediately following clot lysis successfully in several centers. Complications attributable to the procedure are: excessive fibrinolysin activity causing systemic bleeding; "reperfusion arrhythmias," e.g. ventricular tachycardia, ventricular fibrillation; hypotension; and rupture of coronary artery by wire probes.60-62 The reperfusion arrhythmias and hypotension were found to occur only in the successfully thrombolysed right coronary artery group (10 of 14 cases).61 Rentrop has reported lysis of acute coronary thrombosis in saphenous vein grafts of six patients with occlusions occurring three to seven days postoperatively.63 Five of six patients remained asymptomatic at one-year postthrombolysis. The single patient with recurrent symptoms was found to have reoccluded his graft. The major complication in this group was active pericardial bleeding (2 of 6 cases).



Figure 7A—Selective injection of the right coronary artery during early acute inferior wall myocardial infarction. Note virtual total occlusion of the proximal vessel (large arrow) and thrombus just distal to the stenotic segment (small arrow).

Despite the impressive success of intracoronary thrombolysis, a number of questions remain to be answered before it can become a treatment of choice. The interval from onset of infarction till infarction is irreversible must be defined. Maddahi suggests this is between 2½ and 5 hours. 64 There need to be improved methods of rapid diagnosis of the patient with prolonged chest pain without typical ST segment elevation who is a potential candidate for thrombolysis. The interval and type of therapy to be used following thrombolysis remains to be defined. Can thrombolysis be accomplished without selective coronary catheterization? Can the therapy be started peripherally and continued by selective catheterization to save time and increase the likelihood of myocardial salvage?

SUMMARY

Selective coronary arteriography was developed 20 years ago. It remains the diagnostic standard for disorders of the coronary circulation. Chest pain is the most common symptom leading to coronary arteriography. Indications for coronary arteriography in patients with coronary atherosclerotic disease include unstable angina pectoris; pain following MI; for relief of chronic angina; when left main coronary stenosis is suspected; in the postcardiac arrest patient without evolving MI; after subendocardial MI; in selected postcoronary bypass patients; in selected patients with cardiogenic shock not improving with medical therapy; and in acute MI where thrombolysis is anticipated. Coronary arteriography must be considered for patients with unexplained congestive heart failure, syncope, ventricular arrhythmias, and with valvular heart disease. Coronary arteriography is performed by brachial or femoral arterial catheterization. Mortality in adults is estimated to occur 0.07 to 0.25 percent and is determined in part by age, severity of disease, and experience of the angiographer. The magnitude of relative flow reduction through a stenotic coronary artery necessary to cause symptomatic ischemia is not well defined. The commonly accepted criteria for significant coronary artery stenosis is 60 percent diameter reduction derived from studies showing reduction of basal flow when the cross-sectional area is reduced by 85 percent. There is significant inter- and intra-



Figure 7B—Note reperfusion of distal RCA with absence of thrombus following streptokinase infusion for 90 minutes.

observer variability in the interpretation of coronary arteriograms. Coronary vasospasm, myocardial bridges, coronary arteriovenous fistulas, coronary anomalies, and aneurysms are less common but are significant disorders of the coronary circulation. Percutaneous transluminal coronary angioplasty has been shown successfully to dilate atherosclerotic stenoses in selected cases. The complication rate and success rate are related to the experience of the angiographer. Streptokinase has been successful in lysing thrombus in acutely occluded coronary arteries. Selected cases have shown reduction in myocardial damage and failure to evolve transmural myocardial infarction.

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CASE REPORT

Intrapulmonary Neurilemoma: A Rare Neurogenic Tumor

GEORGE T. VELIATH, M.D., B. K. VENKATESH, M.D., ARMAND F. LEONE, M.D., Wayne*

A case of neurilemoma of the lung, a rare, benign neoplasm, is described with clinical and histopathological features.

rimary intrapulmonary neurilemoma is an extremely rare neoplasm. There have been 11 cases reported in the literature. Tissue culture studies have confirmed the origin of the tumor from the nerve sheath cell of Schwann.¹ In 1965, Bartley and Arean, on reviewing the recorded acceptable cases, found that neurilemomas constituted 25 percent of the intrapulmonary neurogenic tumors while the vast majority were neurofibromas.² The incidence of malignant transformation in the latter is much greater than that of neurilemoma which seldom becomes malignant.².⁵ The infrequency of primary neurogenic tumors within the pulmonary tissue is worthy of note, when compared to their frequency within the posterior mediastinum.

CASE REPORT

The patient was a 73-year-old white female who was seen two weeks prior to hospitalization on February 11, 1978, with a complaint of upper respiratory tract infection. A routine chest x-ray revealed a 2.5 cm nodular density in the anterior segment of the right upper lobe (Figure 1). Tomograms confirmed the presence of the lesion which was considered a primary or metastatic malignancy (Figure 2). The patient did not have any significant past history. Physical examination revealed a markedly obese patient of 280 pounds; BP 180/90; pulse rate 82/min; respiratory rate, 20/min; temperature, 98.6. There was 2+ edema of the left lower extremity; the skin of the left leg was thickened and pigmented. EKG showed a right bundle-branch block and

left atrial hypertrophy. CBC and urinalysis were within normal limits. Pulmonary function tests and arterial blood gases were within the acceptable range for her age. The patient underwent a resection of the right upper lobe on February 15, 1978. The pathology report was neurilemoma of the right upper lobe and anthracosis of the lymph nodes. The postoperative period was uneventful and she was discharged in satisfactory condition.

PATHOLOGICAL STUDIES

The specimen consisted of a portion of lung tissue resembling a lobe and weighing 132 gm. It measured 14 x 12.8 x 2.3 cm. The pleural surfaces were pale bluish to pink and predominantly smooth. Four cm from the margin of resection beneath the mucosal surface of the bronchus, a well-circumscribed, light pinkish-tan lesion was noted that measured 3 cm in its greatest diameter. The mucosal surface of the overlying bronchus appeared to be somewhat raised and roughened. The lesion appeared to be located at the periphery of the lobe, close to the pleural surface. Elsewhere, the lung revealed a slightly congested cut surface. No other lesions or nodules were noted in the lung parenchyma. Microscopically, sections of the lung including the lesion showed a fairly well-circumscribed tumor, composed of an

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Figure 1—A lateral view of the chest demonstrates the neurilemoma as a nodular density in the right upper lobe, anterior to the hilum, with well-defined margins (arrows).

interlacing network of whorls and wavy ribbons of spindle cells, containing fusiform to oval hyperchromatic nuclei (Figure 3). In some areas, cells with plump cytoplasm were seen. Rare mitotic figures were noted. A moderate amount of collagen fibers were seen within the tumor, but no malignant changes were noted. Sections from other parts of the lung showed moderate congestive and emphysematous changes. The diagnosis was neurilemoma of lung.

COMMENT

Pulmonary neurilemoma is a well-encapsulated, benign neoplasm with a long natural history. It is discovered usually during a routine examination of the chest. Radiologically, it appears as a round, ovoid, or lobulated homogenous mass with sharp periphery.7 On gross pathological examination, it tends to be ovoid or lobulated and of firm consistency. Cut surface varies from white to greyish pink with yellowish or light tan areas.2 A characteristic histological appearance is noted; with the presence of Antoni type A and type B tissues with pallisading of nuclei.1,2,4,5 The incidence appears to be greater in women. Of the 12 cases recorded so far, including the present case, 8 cases have been in women.1-4 D'Agostino et al. were unable to demonstrate any relationship between a benign-encapsulated neurilemoma and a malignant neurilemoma.5 The majority of pulmonary neurogenic tumors reported were neurofibromas and, of these, 30 percent were malignant.2

SUMMARY

Primary intrapulmonary neurilemoma is a rare, benign neurogenic tumor with characteristic histopathological features. It exhibits Antoni type A and type B tissues microscopically. The vast majority of the neurogenic tumors of the lung are neurofibromas. Differentiation between them is



Figure 2—Anterior-posterior tomogram of the right lung demonstrates the neurilemoma as a nodular density in the right suprahilar region, within the right upper lobe (arrow).

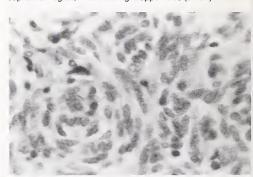


Figure 3—Microphotograph of section of neurilemoma showing network of whorls and wavy ribbons of spindle cells, containing fusiform to oval nuclei.

significant, as neurofibromas are more prone to malignant degeneration.

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YOUR CONGRESSMAN SPEAKS

Medicare To Cover Hospice Services

MATTHEW J. RINALDO, Washington, DC*

A new law, effective November 1, 1983, will extend Medicare coverage to hospice care. Congress expects the program will help contain health care costs by endorsing such a creative health alternative as a hospice.

egislation signed into law by President Reagan extending Medicare coverage to hospice care is expected to save the federal government tens of millions of dollars in health care costs by the mid-1980s.

A cost analysis of the new law by the Congressional Budget Office (CBO) projects a \$16 million reduction in Medicare outlays over the next three years, and a \$100 million savings by the end of the fifth year if the law is extended by Congress.

The CBO study anticipates a substantial savings for every Medicare beneficiary electing hospice care over traditional medical services during the final days of life. Based on an average hospice stay of 45 days, the federal agency estimates it will cost Medicare \$5,010 to maintain a patient in a hospice compared to \$6,120 for those who choose traditional medical services, for a net savings of \$1,120 per hospice user.

While the new law becomes effective November 1, 1983, the anticipated savings will not begin to register until 1985. The reason for this, CBO explains, is that the expected number of current users in comprehensive programs considerably exceeds the projected number of new users each year. As a consequence, in the first two years, in spite of the relatively greater savings per capita for new users, the costs of the expanded benefits for current users exceed the aggregate savings from substitution of hospice for traditional care by new users. In subsequent years, as the ratio of current users to new users declines, the aggregate savings from new users will surpass the costs for current users.

Accordingly, it is predicted that Medicare will show a savings of \$16 million by the end of fiscal 1985. This figure is projected to escalate to \$100 million or more by the end of the fifth year.

In arriving at its estimates, CBO relied on information provided by the Joint Commission on the Accreditation of Hospitals and the General Accounting Office. Based on data developed by the Joint Commission, CBO figures that hospices now are serving about 50,000 persons, 95 percent of whom are dying of cancer, and 60 percent of whom are over 64 years old.

For the purposes of its study, CBO assumed that the number of potential users of hospice care equals 105 percent of the estimated number of cancer deaths each year (264,000 in 1981), and that hospices cared for about 10 percent of potential users last year. When the new law takes effect, it is anticipated that the number of hospice users will increase markedly, reaching 35 percent of potential beneficiaries by the end of 1987. This is a conservative assessment based on projections made by various sources invited to estimate the percentage of potential users likely to take advantage of Medicare-covered hospice services. The estimates ranged as high as 85 percent, but generally were in the range between 25 and 40 percent.

Under the new law, Medicare beneficiaries—mainly those 65 and older—who doctors say have six months or less to live will be free to elect a comprehensive hospice benefit in lieu of all other Medicare benefits except for the continued care of the attending physician. The service will be limited to those enrolled in the hospital insurance part (Part A) of the Medicare program. Those who retain eligibility for Part B of

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Medicare through monthly premiums will not be covered for hospice care.

To keep costs down, a provision was written into the new law directing that the hospice program pay no more than 40 percent of the average cost to Medicare of sustaining a cancer patient for the final six months of life. If the patient requires extensive hospitalization during that time, however, the benefit will cover only an average of 20 percent of the hospital days. The benefit period is organized into two 90-day segments and one 30-day segment so that patients can, if they choose, drop the hospice program and resume regular Medicare coverage.

A wide array of hospice services will be covered under the law, including nursing care; physical, occupational, and speech therapy; medical social services; home health aide and homemaker services; drugs, biologicals, and medical appliances; physicians' services; short-term inpatient care, including respite care; and counseling services. Many of these services have been covered by Medicare all along. For example inpatient care in hospitals and skilled nursing facilities, physicians' services, home health care services, and

"Part of the rationale for extending Medicare coverage to hospice services comes from a compelling need to contain health care costs and part from the realization that hospices provide a practical and compassionate alternative way of caring for the terminally ill."

medical social services under the direction of a physician traditionally have been covered under Medicare. The hospice benefit will cover a few new services such as bereavement counseling and respite care for relatives caring for a terminally ill patient. It also will pay most of the cost of drugs, not just for those used in the hospital as is now the case under Medicare. Basically, the law acknowledges a new provider, the hospice, to deliver expanded benefits in a different way than has been available to Medicare enrollees.

While the legislation is in place, there are details yet to be ironed out before the program is implemented. Specifically, the Health Care Financing Administration (HCFA) must provide guidelines and a definition of hospice itself to determine which providers will qualify for reimbursement. As HCFA deputy administrator Paul R. Willging explained earlier this year in testimony before the House Subcommittee on Health:

"Generally, a hospice is a health care program emphasizing management of pain and other symptoms associated with terminal illness and providing care and counseling for the family as well as the patient. In practice, however, this definition allows for a wide disparity among hospice programs in the United States.

Some hospices offer only counseling services to patients while others provide a comprehensive range of medical and social services."

Federal health care experts now are in the process of developing standards that providers will be required to meet in order to qualify for hospice benefits under Medicare. The standards are to be published by September 1, 1983, after which there will be a period for public comment.

This legislation, which had broad bipartisan support and was cosponsored by more than half the members of the House, appears to be an appropriate economic action at a time when entitlement programs are skyrocketing and runaway federal spending is retarding economic recovery. While there is basis for optimism, not everyone is convinced that the program will deliver the promised savings. Some observers are concerned that as the demand for hospice care increases, a profit-seeking industry will emerge that will bear little resemblance to today's informal network for not-forprofit hospice programs. This could mean that the potential savings would evaporate and government costs could soar as they did when Medicare was extended to cover dialysis for patients suffering kidney failure. In eight years, the kidney patient load has more than tripled and costs have zoomed from \$283 million to more than \$1.5 billion.

Congress has sought to protect the hospice concept as it exists now and to keep costs down through regulatory means and by including a "sunset" provision in the law. This means that if the program does not deliver the desired results it will automatically be terminated as of October 1, 1986, unless it is reauthorized by Congress.

Part of the rationale for extending Medicare coverage to hospice services comes from a compelling need to contain health care costs, and part from the realization that hospices provide a practical and compassionate alternative way of caring for the terminally ill. It is widely acknowledged that one of the major social and economic problems facing the nation is the high cost of health care. Health care expenditures in the United States are now over \$250 billion annually and are approaching nearly 10 percent of the gross national product. During 1982, the government will spend \$50 billion to pay the health care bills for more than 18 million Medicare beneficiaries. That figures reflects a 17 percent increase in Medicare costs in one year and represents about one-fifth of what Americans will spend this year for the health products and services.

At a time when we must find ways of reducing federal entitlement programs, it is important that Congress endorse creative and cost-saving health alternatives such as hospice. These programs now are in operation in every state, including 40 in New Jersey that offer a range of palliative and supportive services. The National Hospice Organization reports that in 1975 there were only 3 hospice programs in the country. Three years later, 78 are known to be giving care, and today there are estimated to be from 450 to 600 hospices in operation across the nation. Their emphasis is placed on care not cure, and comfort not rehabilitation, as they seek to provide a humanitarian way for terminally ill patients to approach death with dignity.

Medical History Museum

RUSSELL L. McINTYRE, Th.D., Piscataway

collection of medical instruments and artifacts donated several years ago by The Academy of Medicine of New Jersey now is a permanent museum at the University of Medicine and Dentistry of New Jersey-Rutgers Medical School. The collection contains some 1,000 medical instruments from general practice dating back to Revolutionary times.

The museum will highlight "The General Physician of the Nineteenth Century." Nine display cases will contain medical instruments available to physicians during this period. The cases and interpretive materials will present a general introduction to medical practice, describe methods used for diagnosis and therapy, and explain the rise of obstetrics and surgery as medical specialties. In addition, a collection of artifacts belonging to Dr. Henry C. Neer—who practiced general medicine and obstetrics in Park Ridge from 1865



Figure 1—Morris H. Saffron, M.D., Past President of the Academy of Medicine of New Jersey and Chairman of the Academy's Committee on History and Archives (second from right), examines artifacts of Dr. Henry C. Neer, M.D., (1838-1911) that were donated by Stuart Alexander, M.D., (right). Looking on is Dr. Russell McIntyre, Museum Director (left), and Stuart Sammis, Archivist, (background).



Figure 2—(left to right) Dean Richard C. Reynolds, M.D., explains interchangeable eyepieces of a microscope to Dr. Russell McIntyre, Marsha Jessup, Director of Media Resources, and Stuart Sammis.

until his death in 1911—is presented as representative of belonging to the typical physician of the nineteenth century; these artifacts recently were donated by Dr. Stuart Alexander.

Dr. Russell McIntyre, Director of UMDNJ-Humanities Programs, is responsible for directing the project. Others involved include: Stuart Sammis, Archivist for the UMDNJ, and Marsha Jessup, Director of Media Resources, UMDNJ-Rutgers Medical School. Dr. Morris H. Saffron and Dr. Audrey Davis, Curator of the Medical and Dental Division of the Smithsonian Institution, served as consultants for the project.

Since the project now is a permanent museum at UMDNJ, additional donations of artifacts and antique medical instruments will be appreciated.

^{*}Dr. McIntyre is Assistant Professor and Director, Medical History Artifacts Collection, UMDNJ-Rutgers Medical School, Piscataway. Correspondence may be addressed to Dr. McIntyre, UMDNJ-Rutgers Medical School, University Heights, Piscataway, NJ 08854.

Twelve Golden Rules for Parents Regarding Sex Education

JOSE F.J. LEYSON, M.D., East Orange**

- 1. One must not separate sex education from any other education; bear in mind that sex education is an integral part of molding a child's whole being which usually starts from the cradle.
- 2. One must realize that the hands and skin are our most vital sex organs. Touching is a delicate art of nonverbal communication.
- 3. Do not curb the spontaneous sexual expressions of the child nor ever stimulate such expressions artificially. Let nature take its course.
- 4. Answer every question of the child truthfully and, wherever possible, immediately, but always according to the emotional and spiritual level of the child. Never answer more questions than those asked.
- 5. Remember that a living example carries more mental imprints and weight than words.
- **6.** Remember that sex information at school never can be anything but an addition to sex education at home.
- 7. Remember to balance the biological aspects of sexuality with its emotional and relational points.
- 8. Teach your children that the root word "co" in coitus means "togetherness": belonging together, being one, being

together, and thus indicating an intimate relationship; not just one night stand.

- 9. Let your children appreciate and understand that sexual exploitation of another human being is equally as reprehensible as any other form of exploitation.
- 10. Self-control and self-worth are the best ingredients for a healthy sexual human being.
- 11. It takes courage to say no, if one does not approve of the idea or action. To be different from his or her peers, or to disagree with one's friends does not mean one is weird. It only means that one is a unique human being with sensitive but honest feelings.
- 12. The pill may be the best alternative to those that understand and command self-respect. It is rather "better a year too early than one night too late." Sex play is both a pleasure and a dual responsibility.

^{*}We encourage our readers to write opinions on topics of interest. Send your opinion to Editor, *The Journal*, MSNJ, Two Princess Road, Lawrenceville, NJ 08648.

^{**}Dr. Leyson is Director of the Sex Clinic, VA Medical Center, East Orange, NJ 07019.

DOCTORS' NOTEBOOK

Trustees' Minutes October 17, 1982

A regular meeting of the Board of Trustees was held on Sunday, October 17, 1982, at the Executive Offices in Lawrenceville. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Report of the President . . .

- (1) Special Meeting on Medical Ethics... Authorized the appointment of a Special Committee on Medical Ethics.
- (2) DATTA Program of the AMA Council on Scientific Affairs ... Congratulated Bernard Robins, M.D., on his appointment as a member of the Diagnostic and Therapeutic Technology Assessment (DATTA) Reference Panel.

Report of the Executive Director . . .

- (1) MSNJ 1982 Paid Membership ... Noted an increase in membership (116 new members) during the period from July 31, 1982, to September 30, 1982.
- (2) Financial Statements ... Reviewed and accepted the financial statements for August 31, 1982, and September 30, 1982.
- (3) Meeting with the Director of the Office of Consumer Protection ... Will request the Attorney General to reconsider the enactment of a change in the customary practice of providing defendants in disciplinary proceedings with a copy of the investigator's or undercover agent's report prior to the informal hearing before the State Board of Medical Examiners. Noted that this change is unfair to defendants and/or their attorneys. Also, noted that the reversal by the State Board of Medical Examiners with regard to decisions of an administrative law judge is an area of concern and an activity that should be investigated.
- (4) Subordinated Loan Deductibility ... Noted that the Board will be notified when a decision is reached in this case that is awaiting the trial calendar in the Tax Court.
- (5) Blue Shield Service Benefits ... Noted the problems relating to Blue Shield Service benefits.

Note: Mr. Maressa met with Francis I Novak, Executive Vice-President of Blue Shield of New Jersey, to discuss the problem relating to Blue Shield service benefits and Prudential major medical coverage for employees of the state government, and the position of Blue Shield that service benefits are applicable even though there is major medical coverage over and above the basic Blue Shield coverage. A ruling by Blue Shield's legal counsel has been requested. In addition, a ruling has been requested on the question of whether the definition of "income" applied in reaching these determinations is appropriate and reflects a realistic evaluation of an individual's true assets and liquidity.

- (6) Proposed 1982-1987 State Health Plan ... Agreed that a copy of the 1982-1987 State Health Plan be made available to county societies for their review and comment. Also, empowered the Executive Committee and the Executive Director to draw up a response to the plan before the deadline on November 17, 1982.
- (7) Commissioner of Health ... Noted that Shirley A. Mayer, M.D., resigned as Commissioner of Health. Authorized the Executive Committee to be involved with the New Jersey Hospital Association in the process of selecting a candidate for appointment to the position of State Commissioner of Health. Authorized the Executive Committee to recommend suitable candidates to Governor Kean for appointment to positions open on the Health Care Administration Board and State-wide Health Coordinating Council.

Ad Hoc Committee on Drug and Alcohol Abuse . . .

Proposed Additions to the New Jersey List of Interchangeable Drug Products ... Approved the following recommendation:

That the Medical Society of New Jersey oppose the inclusion of Schedule II generic drugs in the approved formulary.

Note: Loretta Ridolfi, New Jersey Pharmaceutical Association representative, requested MSNJ to oppose the inclusion of Schedule II generic drugs in the approved formulary because the risk to society to increase inventory due to duplicative stock required by generic dispensing is not worth the small savings involved in the few prescriptions that would be substituted. She noted that recent data show that in those schedules where distribution is possible, 10 percent or less of prescriptions are substitutable whether by physician, patient, or pharmacist choice.

Audit Committee . . . Approved the following recommendations:

That the audited financial statements be accepted and a copy thereof be forwarded to each component medical society.

That Ernst & Whinney be continued as the external auditors.

Impaired Physicians Program ... Received as informative a written report from David I. Canavan, M.D., Medical Director of the Impaired Physicians Program, outlining activities since the beginning of September.

AMA National Conference on the Impaired Physician ... Received as informative a written report from David I. Canavan, M.D., on his attendance at the Impaired Physician Conference held in Portland, Oregon.

Continuing Medical Education Meetings ... Received as informative a written report from Martin E. Johnson, Director of Public Affairs and Medical Education, on his attendance at the Accreditation Council for Continuing Medical Education Meeting and AMA's Tenth Annual Continuing Medical Education Conference held in Chicago.

Health Care Administration Board ... Received as informative a written report from Daniel J. O'Regan, M.D., on his attendance at the meeting of the Health Care Administration Board held on October 7, 1982.

Committee on Peer Review (DRG Appeals) . . .

Establishment of Final Diagnosis by At-

tending Physician . . . Approved the following statement:

It is the policy of the Medical Society of New Jersey that establishment of the final diagnosis is the responsibility of the attending physician and cannot be delegated to nonphysicians.

Old Business . . .

Proposed Changes in the Method of Examining Physicians for Licensure ... Voted to support the Council of Medical Specialty Societies and to advise the Federation of State Medical Boards (FSMB) and the State Board of Medical Examiners of this action with regard to proposed changes in licensure.

Note: Areas of concern are: the FSMB decision to recommend that states no longer recognize the National Board of Medical Examiners' certificate as part of the pathway to licensure, and the FSMB decision to separate the Foreign License Examination into two parts and to require passage of the first part before entry into the second year of postgraduate training.

New Business . . .

(1) Rule 4:21 Panels . . . Requested that Frank J. Malta, M.D., be informed of the special committee appointed by the Supreme Court (chaired by Judge Miller from Cumberland County) to reevaluate the Rule 4:21 panel system.

Note: Dr. Malta wrote to the Board of

physician participation in the Rule 4:21 panel system. Before any changes in position with regard to Rule 4:21 panels, the Board will await the committee's findings.

(2) Foundation of the University of Medicine and Dentistry of New Jersey ... Supported the following recommenda-

That the Board of Trustees authorize a solicitation letter to the membership on behalf of the Foundation, signed by the President of

Directed Dr. Bernstein to summarize his comments in favor of this recommendation for transmittal to component medical societies.

UMDNJ Notes

Stanley S. Bergen, Jr., M.D. President

We are all well aware how the demands and pressures of the medical profession can interfere with the personal lives of physicians and their families. More than most other professions, occupational stress in physicians is responsible for marital and family disruption, drug and alcohol abuse, depression, and suicide. Therefore, it is imperative that future physicians not only realize the Trustees stressing the importance of enormous professional responsibilities

they look forward to but the accompanying personal strains as well.

To this end, the University of Medicine and Dentistry of New Jersey (UMDNJ) is offering two innovative courses-Parenting and Professionalism I and II-to help medical students recognize and prepare themselves for the problems that could lie ahead.

Under the direction of Adele Brodkin. Ph.D., a Clinical Assistant Professor of Child and Adolescent Psychiatry, and Diane Shrier, M.D., Director of Child and Adolescent Psychiatry at UMDNJ's Newark campus, students explore such pressing issues as coping with stress, juggling career and family, and the impaired physician. This is the second year of the special course.

In the course, future physicians are encouraged to scrutinize carefully career and family options. For instance, a student who looks forward to having a large family might be urged toward a specialty with somewhat less demands on the individual's time. Addressing the students are visiting doctors who relate stories on what lies ahead and offer advice on how to integrate personal lives with various types of medical careers.

Innovation is the key word also in health care and research programs at our Piscataway campus. In terms of the latter, Dr. Roger C. Duvoisin, Professor and Chairman of Neurology, met with the press recently to explain the finding that some patients diagnosed as having Parkinson's disease in fact have another nervous system disorder.

Dr. Duvoisin, an internationally recognized specialist in this area, announced that a relatively simple blood test can determine a hereditary enzyme deficiency whose symptoms-unsteadiness in walking and muscular stiffness resemble those of parkinsonism.

The neurology team led by Dr. Duvoisin has found that some of these patients with the deficiency in the enzyme glutamate dehydrogenase can be helped through diet. A common amino acid, leucine, that is found in meat and in cheese, can restore the deficient enzyme to nearly normal levels and thereby subdue the parkinson-like symp-

Dr. Duvoisin advises that all suspected victims of Parkinson's disease should be tested so that the possibility of the enzyme problem can be eliminated. The blood test is available at the medical

In the health care area, a new program is underway involving some innovative methods to enhance the treatment-and

Are You Moving?

If so, please send change of address to The Journal, Medical Society of New Jersey,

Two Princess Road, Lawrence	eville, NJ 08648, at	least six weeks be	fore you mov
Name			
Address			
City	State	Zip	
County			
Attach mailing label from The			

therefore the lifestyles—of the non-insulin-dependent diabetic adult.

Avedis K. Khachadurian, M.D., Chief of the Division of Endocrine and Metabolic Diseases, heads this multidisciplinary program which involves specialists in endocrinology, psychiatry, physiology, and nutrition. It is hoped that through intensive education, nutrition, and lifestyle modification, the diabetic can become an active participant in self-care. Lectures, demonstrations, and a three-times-per-week exercise regimen are primary components of the program, which is held in the Medical Education Building adjacent to Middlesex General Hospital, New Brunswick, Individual exercise programs are tailored to patient need.

One of the objectives of this venture is to establish guidelines for physical training of diabetics, particularly those who suffer from disease complications; another objective is to develop as an educational resource for the comprehensive health care delivery to diabetics for physicians, nutritionists, and nurse educators.

MSNJ Auxiliary

Linda B. Hirsch, President

"Why should I join the MSNJ Auxiliary?" This question is asked by prospective members in many counties throughout New Jersey. My answer is personal, but I feel it has validity for others.

I believe we all share a responsibility to improve the quality of life for others, to help people in our communities live healthier and happier lives. County and state medical society auxiliaries are part of the unique voluntary organization—the AMA Auxiliary—whose goals are to better our lives through meeting health needs, promoting sound health-related legislation, and supporting projects for the benefit of all of us.

Personal goals and lifestyles of physicians' spouses are changing. Many are not interested in volunteerism or in being identified with their spouses' profession. They seek personal satisfaction in terms of financial rewards, and desire an identity of their own.

I can identify with these changing goals. Although I have a professional career, I believe my involvement in the Medical Society Auxiliary satisfies my need to be productive and useful through services to help others.

I belong to an organization of 80,000 people who have the strength and knowhow to accomplish tasks. Medical society auxiliaries cooperate effectively with other community organizations I value in helping people enrich their lives. Auxiliary work is challenging. It provides leadership training and educational seminars that keep me aware of current health problems and some of the answers. There are so many projects and services needed in the community and I can be involved in selecting those I want to pursue.

I am grateful to the MSNJ Auxiliary for the experiences and opportunities that have enriched my life.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Offices of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

CARDIOLOGY—Jared M. Insel, M.D., 414 Fellows Avenue, Syracuse, NY 13210. NYU 1977. Board certified. Group, partnership, solo. Available July 1983.

FAMILY MEDICINE—Jeffrey P. Tannenbaum, M.D., 3 Brookhill Dr., Schenectady, NY 12309. Boston 1977. Board certified. Group or partnership. Available.

Daniel J. Sastic, M.D., 9 Farragut Drive, Piscataway, NJ 08854. Rochester 1980. Board eligible. Group or partnership. Available June 1983.

GASTROENTEROLOGY—Muhammad A. Nyazee, M.D., 1650 Selwyn Ave., Bronx, NY 10457. Also, general internal medicine. Board certified (IM). Solo or group practice, partnership, academic (gastroenterology). Available.

M. Jigjinni, M.D., 14500 McNab Ave., #1201, Bellflower, CA 90706. Karnatak Medical College (India) 1974. Board certified (IM). Partnership, group, solo. Available.

William W. Mark, Jr., M.D., 2289 South Lewiston St., Aurora, CO 80013. Guadalajara (Mexico) 1975. Also, general internal medicine. Group or partnership. Available June 1983

Leonard Luterman, M.D., 5740 Cavendish Blvd., Apt. 1308, Montreal, Quebec, Cana-

da H4W 2T8. McGill 1977. Also, general internal medicine. Board eligible. Any type practice. Available July 1983.

Louis D. May, M.D., 2122 Kensington Ave., Salt Lake City, UT 84108. Miami 1978. Also, general internal medicine. Board certified (IM). Group or partnership. Available June 1983.

GENERAL PRACTICE—Samuel Saland, M.D., 125-F Galaxy, 7000 Boulevard East, Guttenberg, NJ 07093. Berne (Switzerland) 1934. Board certified (FP). Subspecialty, alcoholism (detoxification, treatment, rehabilitation). Full or part time, multispecialty group, associate, preferably in vicinity of Fort Lee or Guttenberg area. Available.

Alan D. Brownfield Palo, M.D., 6611 Pelham Dr., Parma, OH 44129. Guadalajara (Mexico) 1976. Special interest in ENT. Office-based general ENT, surgical ER, or surgical house staff. Available.

HEMATOLOGY (PEDIATRIC)—Shailesh J. Shah, M.D., 430 E. 67th St., Apt. 5-C, New York, NY 10021. Baroda (India) 1974. Special interest in pediatrics, and pediatric oncology. Group, partnership, institutional. Available July 1983.

INTERNAL MEDICINE—Steven Fischkoff, M.D., 6792 Pyramid Way, Columbia, MD 21044. Pennsylvania 1976. Subspecialty, oncology. Board certified (both). Group or partnership. Available.

Frank Gentile, M.D., 2116 Trail 2, Apt. 9-K, Burlington, NC 27215. Bologna (Italy) 1973. Subspecialty, hematology and oncology. Solo or partnership. Available.

S. Srinivas, M.D., 7859 Riverdale Rd., Apt. 103, New Carrollton, MD 20784. Gandhi (India) 1973. Subspecialty, gastroenterology. Board certified. Solo, partnership, single-specialty group. Available.

Madhusudhan T. Gupta, M.D., 8093 Valcour Ave., Apt. 202, St. Louis, MO 63123. Osmania Medical 1974. Subspecialty, cardiology. Board certified. Solo, group, partnership. Available.

Nanjappa Ravi, M.D., Prel Gardens, Apt. ID, Orangeburg, NY 10962. India 1970. Board eligible. Solo, group, partnership, emergency room. Available.

Vinod Kanbilal Shah, 507 6th St., Brooklyn, NY 11215. MP Shah (India) 1975. Board eligible. Group, solo, partnership. Available.

Jae O. Park, M.D., 9542 W. Pickwick, Taylor, MI 48180. Chonnam (Korea) 1969. Board eligible. Hospital based or group. Available.

Curtis A. Wushensky, M.D., 3437 Fifth Ave., Apt. 506, Pittsburgh, PA 15213. University of Pittsburgh 1979. Board eligible. Salaried, hospital, locum tenens, emergency room. Available.

Ellis R. Levin, M.D., 223 Pacific St., Apt. D, Santa Monica, CA 90405. Jefferson 1975. Subspecialty, endocrinology. Board certified. Group, associate, partnership. Available.

B. Sathish Chandar, M.D., 150 York St., Stoughton, MA 02072. Stanley (Madras, India) 1975. Board eligible. Partnership. William W. Mark, Jr., M.D., 2289 South Lewiston St., Aurora, CO 80013. Guadalajara (Mexico) 1975. Subspecialty, gastroenterology. Group or partnership. Available June 1983.

Laurence N. Sechter, M.D., 1870 Stewart Ave., New Hyde Park, NY 11040. Rome (Italy) 1977. Subspecialty, nephrology. Board eligible. Partnership, solo, group. Available July 1983.

Young J. Ko, M.D., 2927 Dorchester St., Apt. 206, Troy, MI 48084. Chonnam (Korea) 1973. Subspecialty, pulmonary medicine. Board certified (IM); board eligible (PM). Solo, group, partnership. Available July 1983.

Frank Lopez, M.D., 60 Overlook Rd., Summit, NJ 07901. Einstein 1980. Board eligible. Group or partnership. Available. Louis D. May, M.D., 2122 Kensington Ave., Salt Lake City, UT 84108. Miami 1978. Subspecialty, gastroenterology. Board certified. Group or partnership. Available June 1983. Leonard Luterman, M.D., 5740 Cavendish Blvd., Apt. 1308, Montreal, Quebec, Canada H4W 2T8. McGill 1977. Subspecialty, gastroenterology. Board eligible. Any type practice. Available July 1983.

M. Zaslow, M.D., 24 Westgate Road, Chestnut Hill, MA 02167. Harvard 1977. Subspecialty, pulmonary medicine. Board certified (IM); board eligible (pulmonary medicine). Any type practice. Available.

David George, M.D., 76 St. Paul Street, Apt. 6, Brookline, MA 02146. Harvard 1978. Subspecialty, rheumatology. Board certified. Group. Available July 1983.

NEPHROLOGY—Laurence N. Sechter, M.D., 1870 Stewart Ave., New Hyde Park, NY 11040. Rome (Italy) 1977. Also, general internal medicine. Board eligible. Partnership, solo, group. Available July 1983.

OBSTETRICS/GYNECOLOGY—Yvonne S. Thornton, M.D., 11319 Schuylkill Rd., Rockville, MD 20852. Columbia 1973. Subspecialty, maternal/fetal medicine. Board certified (both). Partnership or group (single specialty), Morris or Middlesex counties preferred. Available.

Ibrahim Beruti, M.D., 1236 Napoleon St., Fremont, OH 43420. Alexandria (Egypt) 1969. Board certified. Solo. Available.

Gary S. Rosenberg, M.D., 245-20 Grand Central Parkway, Bellerose, NY 11426, SUNY-Downstate 1977. Board eligible. Group or partnership. Available.

Richard Malafy, M.D., 8716 East Spanish Barb. Trail, Scottsdale, AZ 85258. UMDNJ 1971. Board eligible. Any type practice. Available.

Andrew R. Herzog, M.D., 310 East 23rd St., New York, NY 10010. New York Medical 1979. Board eligible. Group or partnership. Available July 1983.

ONCOLOGY/HEMATOLOGY—Shailesh J. Shah, M.D., 430 E. 67th St., Apt. 5-C, New York, NY 10021. Baroda (India) 1974. Special interest in pediatrics. Group, partnership, institutional. Available July 1983.

OPHTHALMOLOGY—Michael Hostovsky, M.D., 4100 West 36th St., Minneapolis, MN 55416. Hadassah (Israel) 1972. Also, neuro-ophthalmology. Board eligible. Single or multispecialty group. Available.

Jasvinder Singh, M.D., 500 Central Ave., Apt. 702, Union City, NJ 07087. Lady Hardinge (India) 1970. Board eligible. Partnership, group, HMO. Available.

OTOLARYNGOLOGY—Arnold I. Charow, M.D., 6 Country Club Dr., Larchmont, NY 10538, Louisville 1966. Also, head and neck surgery. Board certified. Would cover ENT practice one day a week (Wed.) Available.

Richard Schiffman, M.D., 2717 East 28th St., Brooklyn, NY 11235. Tufts 1977. Board eligible. Partnership or group. Available.

Kwang H. Choi, M.D., 8704 Pellington Place, Apt. 3, Richmond, VA 23229. Seoul (Korea) 1976. Board eligible. Partnership or associates. Available July 1983.

PATHOLOGY—S.A. Hadi, M.D., 50 S. Chillicothe St., South Charleston, OH 45368. Gandhi Medical (India) 1964. Board certified (PA). Group. Available.

Siamak Shokri-Tabibzadeh, M.D., Montefiore Hospital and Medical Center, 111 E. 210th St., Bronx, NY 10467. Tehran (Iran) 1977. Academic institution. Available February 1983.

Marvin N. Solomon, M.D., 3 Sutliff Ave., Vineland, NJ 08360. Berne (Switzerland) 1937. Special interest in anatomic and forensic. Board certified (PA); board eligible (forensic). Hospital staff, locum tenens.

Pushpa Gupta, M.D., 100-C Thorndale Dr., Dayton, OH 45429. Dr. S.N. Medical College (India) 1971. Any type practice. Available.

PEDIATRICS—Shailesh J. Shah, M.D., 430 E. 67th St., Apt. 5-C, New York, NY 10021. Baroda (India) 1974. Board eligible. Special interest in pediatric

217th Annual Meeting April 29–May 2, 1983

Resorts International Atlantic City, New Jersey Daily Schedule

Friday, April 29, 1983

3:30 p.m.-Board of Trustees' Meeting

5:00 p.m.—Delegate Registration

7:00 p.m.—Officers' Cocktail Reception followed by Dinner

Saturday, April 30, 1983

7:30 a.m.—Delegate Registration

9:00 a.m.-House of Delegates

9:00 a.m.—Message Center, Scientific, Informational, and Insurance Exhibits Open

10:30 a.m.—House of Delegates (election)

12:00 noon-Golden Merit Award Ceremony followed by Reception

1:00 p.m.-Reference Committee Meetings

5:00 p.m.—JEMPAC Political Forum

5:45 p.m.—JEMPAC Wine and Cheese Reception

Sunday, May 1, 1983

8:00 a.m.—Registration Opens

9:00 a.m.—Message Center, Scientific, Informational, and Insurance Exhibits Open

9:00 a.m.—Scientific Sessions

12:00 noon-Luncheons

1:00 p.m.—Scientific Sessions

6:30 p.m.—Inaugural Reception followed by Inaugural Dinner

Monday, May 2, 1983

6:30 a.m.—County Society Breakfast Caucuses

8:00 a.m.—Registration Opens

9:00 a.m.—Message Center, Scientific, Informational, and Insurance Exhibits Open

9:00 a.m.—House of Delegates

12:00 noon—Message Center, Scientific, Informational, and Insurance Exhibits Close

12:00 noon-House Adjourns for Lunch

1:30 p.m.-House Reconvenes

3:00 p.m.-Board of Trustees' Meeting

hematology/oncology. Group, partnership, institutional. Available July 1983.

Renuka D. Desai, M.D., 1258 Liberty Bell Dr., Cherry Hill, NJ 08003. GS Medical College (India) 1973. Board certified. Group or partnership. Available.

Ann M. Hawryluk, M.D., 1804 Windsor Ridge Dr., Westborough, MA 01581. Harvard 1980. Board eligible. Group, partnership, HMO, solo. Available July 1983.

PSYCHIATRY-Paul L. Maitheny, M.D., 99 Pawnee Rd., Lakewood, NJ 08701, University of Graz (Austria) 1951. Board eligible. Available.

PULMONARY DISEASES-Young J. Ko, M.D., 2927 Dorchester St., Apt. 206, Trov. MI 48084. Chonnam (Korea) 1973. Also, general internal medicine. Board certified (IM); board eligible (PM). Solo, group, partnership. Available July 1983.

M. Zaslow, M.D., 24 Westgate Road, Chestnut Hill, MA 02167. Harvard 1977 Also, general internal medicine. Board certified (IM); board eligible. Any type practice. Available.

RADIOLOGY-Stephen Phillip Laufgraben, M.D., 19 Poplar Ave., Wheeling, WV 26003. University of Arkansas 1973. Board certified. Single-specialty group, hospital based, private. Available,

M. T. Centanni, M.D., Box 222, Bloomfield, NJ 07003. Bologna (Italy) 1970. Board certified. Group or hospital (full time). Available.

RHEUMATOLOGY-David George, M.D., 76 St. Paul St., Apt. 6, Brookline, MA 02146. Harvard 1978. Also, general internal medicine. Board certified (IM). Group, Available July 1983.

SURGERY, GENERAL-Mohammad Amawi, M.D., 1904 Barham St., Dodge City, KS 67801. Damascus (Syria) 1971. Board certified. Group, partnership, or multispecialty group. Available.

Larry E, Shindelman, M.D., 201 W. 89th St., New York, NY 10024. SUNY-Downstate 1977. Also, vascular surgery. Board eligible. Group or partnership. Available July 1983.

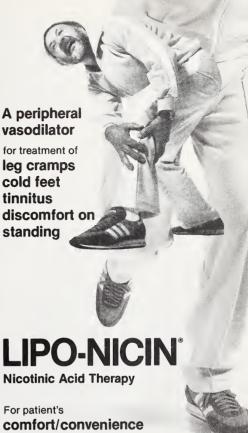
James P. Gadzik, M.D., 414 Country Lane, Narberth, PA 19072. Pennsylvania 1976. Group, partnership, general surgery (with vascular and thoracic). Available July

SURGERY, ORTHOPEDIC-Mark S. Berkowitz, M.D., 1045-55th St., Brooklyn, NY 11219. New York Medical 1978. Board eligible. Group or partnership. Available July 1983.

Shearwood J. McClelland, M.D., 380 E. Town St., Columbus, OH 43215. Columbia 1974. Board certified. Partnership or group. Available January 1983.

SURGERY, VASCULAR-Larry E. Shindelman, M.D., 201 W. 89th St., New York, NY 10024. SUNY-Downstate 1977. Also, general surgery. Board eligible. Group or partnership. Available.

UROLOGY-Howard L. Frey, M.D., 10982 Roebling Ave., Apt. 425, Los Angeles, CA 90024. Johns Hopkins 1977. Subspecialty, infertility and microsurgery. Board eligible. Group, partnership, solo. Available July 1983.



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MEDICAL PHILATELY

Medical Pioneers

JOSEPH H. KLER, M.D., New Brunswick

Mary Edwards Walker, M.D., (1832-1919) was born in Oswego, New York, and received her medical degree from the University of Syracuse Medical School in 1852. She practiced in Rome, New York.

With the outbreak of the Civil War in 1861, Dr. Walker closed her practice and applied for a commission in the Union Army. Her request was denied because at that time regulations did not specify that women physicians could be commissioned. She then volunteered to serve in any capacity in any military hospital. She served as an "administrative assistant "

In 1864, she was sent to serve in the Chattanooga Hospital and while there she was appointed to serve as an Army Surgeon to replace a recently deceased surgeon. Her friendly competence won her the admiration of all. On November 11, 1865, President Andrew Johnson signed the executive order awarding her the Medal of Honor for her work "as the first woman physician to serve in the Army without concealing her sex." In 1916 the rules for awarding the Medal of Honor disqualified her as a recipient but she refused to return her medal. On June 10, 1977, the honor was reinstated. Dr.

Walker was an active and effective suffragette. Born in Saint-Denis, Reunion, in

1831, Felix Guyon, M.D., emigrated to France and studied medicine at the University of Paris. Interested in the new field of urology, he became urologic surgeon at the Necker Hospital, Dr. Guyon was a masterful operator and was considered the leading urologist in Europe, Author of many books and articles, Dr. Guvon is remembered for Guyon's sign or palpation of a floating kidney, and Guyon's isthmus or prolongation of the mouth of the uterus.



Mary Walker, M.D.



Felix Guyon, M.D.

LETTERS TO THE EDITOR

Medical Assistants

September 21, 1982

Dear Doctor Krosnick:

I wish to express my gratitude to Doctor Kovacs for his article "Who's Afraid of the Big, Bad Medical Assistant?" It was most gracious of him to come to our defense.

I am curious as to how many of our physicians are aware of the fact that many of our institutions of higher education, some of which work very closely with local chapters of AAMA, are offering programs of study in the field of medical assisting.

As an instructor in one of these programs and a member of AAMA in the employ of a physician, I can assure the members of the Medical Society of New Jersey that our primary concern is quality care for your patients. We are striving for professionalism in the field of medical assisting and knowledge so that we may better serve our employers and our communities.

Medical assistants are not physicians nor do they pretend to be. Medical assistants only wish to perform successfully the tasks associated with their careers. They want to be the best they can be in their field.

The physician need not fear, for there would be no medical assistant without him. The medical assistant does not want to take over his practice. She is not a doctor, just as the doctor is not a secretary or an accountant. She is a part of the medical team. But the functions that the medical assistant performs are vital to the operation of a physician's practice. I was not aware that in this day

and age knowledge still was considered dangerous.

Again, I ask that you ponder the question brought by many of your peers: who ultimately profits from the medical assistant's attainment of knowledge and professionalism? If you truly are honest, I believe your answer will be that her physician-employer does.

(signed) Judith Bender Gangemi Instructor, Jersey City State College I might add that I have saved all of the ads in the series. When a physician calls me up to say that his wife has dragooned him into giving a speech for the Women's Club, the Senior Citizens, or the Amvets, and he tells me he is at a loss as to what to say, I send him a batch of these ads and tell him to lift generously from the ad copy and he will be informative, accurate, and interesting.

This series of ads is one proof that membership in MSNJ is a bargain.

(signed) George Willis Executive Director Bergen County Medical Society

MSNJ Public Relations

September 1, 1982

Dear Doctor Kronsick:

The Medical Society of New Jersey has been running a series of two-column ads on an infrequent schedule. These ads appear in *The Record*, our local evening newspaper.

Their impact on the public is very beneficial to the medical profession if one is to judge by the inquiries we get in this office after their appearance. Whoever is doing the copy has a good ear and writes so people can understand.

I particularly was impressed by the most recent ad, "You Are What You Eat." We are bombarded in this area with a tremendous number of queries from the "nuts among the berries" types. The copy in this ad provides us with a ready-made answer for the kind of patient who calls and complains that physicians do not know anything about nutrition. I plan to send copies of this ad to every such caller.

Physician Assistants

October 15, 1982

Dear Dr. Krosnick:

Since the official position of MSNJ opposes the employment of physician assistants in New Jersey-for reasons which are rational and relate to the quality of care rendered to New Jersey patients-I feel that it is totally inappropriate to publish propaganda for UMDNJ in the October issue of The Journal. UMDNJ continues to try to "get a foot in the door"-witness the current attempt to "license" PAs for open-heart surgery. If they have something to prove, let them move it through the front door before the House of Delegates. Until then, I reiterate that publication of the article on PAs in The Journal was inappropriate.

(signed) Sheldon S. Schoen, M.D.

1E CALENDAI

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, The Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the University of Medicine and Dentistry. For information on accreditation, please contact the sponsoring organization(s), indicated by italics-last line of each

ANESTHESIOLOGY

18 Myocardial Protection During Bypass Surger

7:45-8:45 p.m.—Ramada Inn. Clark (NJ State Society of Anesthesiologists and AMNJ)

CARDIOLOGY

Jan.

13 Indications for Invasion Studies-Cardiology

2 p.m.-John E. Runnells Hospital of Union County, Berkeley Heights (AMNJ)

Feb.

15 Newer Cardiac Drugs

12 noon-St. Mary's Hospital, Orange (AMNJ)

MEDICINE

Jan.

5 Immunization for Hepatitis

9:30-11 a.m.-Bergen Pines County Hospital, Paramus (Bergen Pines County Hospital and AMNII

5 Thromboembolism and Thrombolytic Therapy

11:30 a.m.-Columbus Hospital, Newark (AMNJ)

5 Medical Grand Rounds

11:30 a.m.-VA Medical Center, East (Endocrinology Section of AMNJ)

5 CDS Prescribing Practices 1-2:30 p.m.-Christ Hospital, Jersey City (AMNJ)

5 Dinner Meeting

6-9:30 p.m.—Holiday Inn, East Orange (Endocrinology Section of AMNJ)

5 Pulmonary Hypertension 19 Update on Calcium Blockers

26 Fat Metabolism 9-11 a.m.-Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJI

Endocrine Conferences

12 3:30-5 p.m.—Rotates between

Newark Beth Israel Medical Center,

University Hospital, United Hospitals Medical Center, Newark, VA Medical Center, East Orange (Endocrinology Section of AMNJ)

Medical Grand Rounds 9:30 a.m.—Newark Beth Israel Medical Center

(Endocrinology Section of AMNJ)

Urinary Tract Infections

Diuretic Therapy-Hypertension 11 a.m.-12:30 p.m.-St. Joseph's Hospital and Medical Center, Paterson (St. Joseph's Hospital and AMNJ)

Medical Grand Rounds 11:30 a.m.—University Hospital, Newark (Endocrinology Section of AMNJ)

Renal Conferences in Nephrology

21 4-5 p.m.—University Hospital, Newark Rm. H-349 (Nephrology Society of NJ and Nephrology Section of AMNJ)

Emergency Care 11 a.m.-Greystone Park Psychiatric Hospital (AMNJ)

12 Infectious Disease 1-2:30 p.m.—Christ Hospital, Jersey City (Christ Hospital and AMNJ)

Proper Use of Blood Transfusion Therapy

Thromboembolism and Thrombolytic Therapy 11:30 a.m.-12:30 p.m.-Rahway

Hospital (AMNJ)

12 Total Parenteral Nutrition: State of the Art 1983

Advances in Blood Component Therapy 9:30-11:30 a.m.-Riverside Hospital, Boonton (Riverside, St. Clare's, and Dover General Hospitals and AMNJ)

13 Differential Diagnosis and Management of Jaundice

8-9 p.m.—Garden State Community Hospital, Marlton (Burlington County Medical Society and AMNJ)

14 Osteoarthritis

12:15-1:15 p.m.-J.F. Kennedy Memorial Hospital, Stratford (UMDNJ-NJ School of Osteopathic Medicine, J.F. Kennedy Memorial Hospital, and AMNJ)

Protein and Carbohydrate Metabolism in Uremia 7:30-8:30 p.m.-Ramada Inn, Clark (Nephrology Society and AMNJ)

18 Newer Agents in Treating Arthritis 12 noon-St. Mary's Hospital, Orange (AMNJ)

Clinical Disorders of Hyperkalemia 4-5 p.m.—Academic Health Science

Center Medical Education Bldg., New Brunswick (UMDNJ-Rutgers Medical School and AMNII

19 Dermatological Conferences 6-9 p.m.—Rutgers Community Health Plan, 57 U.S Hwy. I, New Brunswick (UMDNJ-Rutgers Medical School Div. of Dermatology and AMNJ)

19 Drug-Induced Liver Disease 1-2 p.m.-West Hudson Hospital, Kearny (West Hudson Hospital and AMNJ)

19 Hypertensive Urgencies 1-2:30 p.m.—Christ Hospital, Jersey

(Christ Hospital and AMNJ)

22 Metabolic Bone Disease 8-10 a.m.—Newcomb Hospital. Vineland (Newcomb Hospital)

25 Thyroid Diseases 11 a.m.—Greystone Park Psychiatric Hospial (AMNJ)

26 Beta-Blockers-Overview and Update 1-2:30 p.m.-VA Medical Center, Lyons (VA Medical Center and AMNJ)

Feb.

1 Adrenal Disease

11 a.m.-Greystone Park Psychiatric Hospital (AMNJ)

2 Medical Grand Rounds 11:30 a.m.-VA Medical Center, East (Endocrinology Section of AMNJ)

2 Burns: Current Treatment 1 p.m.-Christ Hospital (AMNJ)

2 Endocrine Conferences 3:30-5 p.m.—Rotates between Newark Beth Israel Medical Center, University Hospital, United Hospital Medical Center, Newark, and VA Medical Center, East Orange (Endocrinology Section of AMNJ)

2 Dinner Meeting 6-9:30 p.m.-Holiday Inn, East Orange (Endocrinology Section of AMNJ)

Medical Grand Rounds 9:30 a.m.-Newark Beth Israel Medical Center (Endocrinology Section of AMNJ)

4 Medical Grand Rounds 11:30 a.m.—UMDNJ-University Hospital, Newark (Endocrinology Section of AMNJ)

Nephrology Section of AMNJ)

Renal Conferences in Nephrology 4-5 p.m.-UMDNJ-University Hospital, Newark (Nephrology Society of NJ and

The Academy of Medicine of New Jersey in cooperation with The Clara Maass Medical Center presents

"AN INTENSIVE REVIEW OF INTERNAL MEDICINE"

JANUARY 12, 1983 to MAY 18, 1983 (19 Successive Wednesdays) 3:00-6:00 P.M.

at

Clara Maass Medical Center Lecture Hall Franklin Avenue, Belleville, New Jersey

The course is designed to assist participants in their preparation for the Internal Medicine certification (and recertification) exam scheduled for the fall of 1983. It is also provided as a review of recent advances for private practicing internists. family practitioners and residents. Syllabus material will be distributed during the course and section chairmen have been encouraged to invite out-of-state guest lecturers to participate in each of eleven disciplines.

For further information on registration, faculty and fees please contact: Ms. Henrietta Golub Academy of Medicine of New Jersey

Two Princess Rd., Lawrenceville, NJ 08648

Phone: (609) 896-1717



LIKOFF CARDIOVASCULAR INSTITUTE

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CARDIOLOGY UPDATE . .

IS DESIGNED FOR THE PHYSICIAN AND PROVIDES AN INTENSIVE SURVEY OF THE CURRENT STATUS OF CLINICAL CARDIOLOGY...

WEDNESDAY, JANUARY 5, 1983

20 minute lectures—Questions and Answers (10 minutes) MODERATOR: BERNARD L. SEGAL, M.D.

CARDIAC DISEASE AND NEUROLOGICAL PROBLEMS—CASE PRESENTATION/DISCUSSION Morris N. Kotler, M.D.

WHAT HAPPENS TO PATIENTS WITH CORONARY SPASM—CASE PRESENTATION Charles E. Bemis, M.D.

IMPROVING THE PREDICTIVE ACCURACY OF EXERCISE ECG TESTING

Stuart Snyder, M.D.

CLAUDICATION: DIAGNOSIS AND MANAGEMENT

David Naide, M.D.

ADVANCES IN PEDIATRIC CARDIOLOGY: 1983

Eshagh Eshaghpour, M.D.

3:00 P.M.—2nd floor New College Building, Hahnemann University NO REGISTRATION FEE
 NO ADVANCE REGISTRATION REQUIRED CME CATEGORY I CREDITS CERTIFIED **WINE & CHEESE SERVED FOLLOWING CONFERENCE**

- Grani-negative Bacteremia and Septic Shoel 8-10 a.m.-Newcomb Hospital, Vineland (Newcomb Hospital)
- Diabetic Nephropathy
- Sudden Death: Causes, Prevention
- Update: Viral Hepatitis 1-2:30 p.m.-Christ Hospital, Jersey City
- (Christ Hospital and AMNJ)
- Hormone Receptors
- Pancreatic Islet Cell Tumors 9-11 a.m.-Middlesex General Hospital. New Brunswick (NJ Academy of Family Physicians and AMNJ)
- 10 Antiarrhythmic Therapy 2 p.m.-John E. Runnells Hospital of Union County, Berkeley Heights (AMNJ)
- 11 Oral Analgesics 12:15-1:15 p.m.-J.F. Kennedy Memorial Hospital, Stratford (UMDNJ, J.F. Kennedy Memorial Hospital, and AMNJ)
- 15 Gastrointestinal Bleeding 11 a.m.—Greystone Park Psychiatric Hospital (AMNJ)
- CAPD-Recent Advances 4-5 p.m.-Academic Health Science Center Medical Education Bldg. New Brunswick

(UMDNJ-Rutgers Medical School and AMNJ)

- 10:30-11:30 a.m.—South Bergen Hospital, Hasbrouck Heights (AMNI)
- **Dermatological Conferences** 6-9 p.m.-Rutgers Community Health Plan, 57 U.S. Hwy. 1, New Brunswick (UMDNJ and AMNJ)
- Regulation of Potassium-renal and Extrarenal Mechanisms 7:30-8:30 p.m.-Ramada Inn, Clark (Nephrology Society and AMNJ)
- 25 Nonsurgical Management of Benign and Malignant Esophageal Strictures 8-10 p.m.-Englewood Club, 115 E. Palisade Ave., Englewood (Englewood Surgical Society and AMNJ)
- Prophylactic Antibiotic Therapy 9:30-11:30 a.m.—Riverside Hospital, Boonton (Riverside, St. Clare's, and Dover General Hospitals and AMNJ)

NEUROLOGY/PSYCHIATRY

Jan.

- 3 Psychiatric Case Conferences
- 7:30-11:30 a.m.—Trenton Psychiatric 17
- Hospital 24 (Trenton Psychiatric Hospital and
- 31 AMNJ)
- 5 Ongoing Child Psychiatry Case
- 12 Conference 19
 - 10 a.m.-12 noon-Trenton Psychiatric

- Hospital (Trenton Psychiatric Hospital and 4MNII
- Anorexia Nervosa: New Perspectives 12 noon-1 p.m.—Carrier Foundation. Belle Mead (Carrier Foundation and AMNJ)
- 10 Mixed Neurosis in Middle Adolescence 8:15-10:30 p.m.-111 Ridgewood Ave., Glen Ridge (Essex Psychiatric Seminar and AMNJ)
- 12 Drug Interactions in the Use of Psychotropic Medications 9-11 a.m.—Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and
 - **Psychiatric Consultations** 1:30-3:30 p.m.—Trenton Psychiatric Hospital (Trenton Psychiatric Hospital and AMNJ)

Feb.

- 2 Diagnosis and Treatment of Depressive
- Panic Attacks: Acute Anxiety 9-11 a.m.-Middlesex General Hospital, New Brunswick (NJ Academy of Family Physicians and AMNJ)
- Child Psychiatry Case Conferences
- 10 a.m.-12 noon-Trenton Psychiatric
- 16 Hospital
- (Trenton Psychiatric Hospital and AMNJ)
- Burnout in a Gay Lady 8:15-10:30 p.m.-543 Park St., Upper (Essex Psychiatric Seminar and AMNJ)
- **Psychiatric Case Conferences**
- 7:30-11:45 a.m.—Trenton Psychiatric 14
- 21
- (Trenton Psychiatric Hospital and AMNJ)
- Eating Disorders (Obesity and Anorexia) 8-10 a.m.—Newcomb Hospital, Vineland (Newcomb Hospital)

PATHOLOGY

Jan.

- Cell Interactions and Differentiations
- 13 Molecular Interactions of Cells with Extracellular Matrix Molecules
- Cellular Adhesion and Recognition
- Retroviruses and Cancer 4-6 p.m.-Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJ)

Feb.

- **Antigen and Human Tumors**
- Hormone Receptors and Action
- Growth Factors
- **Hormones and Cancer**
 - 4-6 p.m.-Institute for Medical Research, Copewood St., Camden (Institute for Medical Research and AMNJ)

PEDIATRICS

Jan.

- 5 Pediatrics: Congenital Diseases 10:30 a.m.-St. Mary's Hospital, Passaic (AMNI)
- Muscle Diseases in Children 9 a.m.—Freehold Area Hospital (AMNJ)14 Vesicoureteral Reflux: The Changing
- 8:15-9:45 a.m.—Overlook Hospital, Summit (Overlook Hospital/Columbia University College of Physicians and Surgeons and
- 17 Nutritional Support of the Hospitalized Child 12 noon-1 p.m.—The Mountainside Hospital, Montclair (The Mountainside Hospital and AMNJ)

Feb

- 2 Neonatal Problems 10:30 a.m.-St. Mary's Hospital, Passaic (AMNJ)
- 11 Evaluation of Patient with Suspected Metabolic Diseases 8:15-9:45 a.m.—Overlook Hospital, Summit (Overlook Hospital, Columbia University College of Physicians and Surgeons, and AMNJ)

RADIOLOGY

Jan.

Dinner Meeting 6:30 p.m.—The Manor, West Orange (Radiotherapy Section of AMNJ)

SURGICAL SPECIALTIES (includes ENT, Neurosurgery, Ophthalmology, Orthopedic, Plastics, and Vascular Surgery)

Cleft Lip and Palate Surgery 8-10 a.m.-Newcomb Hospital, Vineland (Newcomb Hospital)

Feb.

17 Appropriate Uses of Analgesic Agents in Musculoskeletal Injuries 5-6:30 p.m.—Somerset Medical Center,

Somerville (Somerset Medical Center and AMNJ)

MISCELLANEOUS

Jan

20 Medical Consequences of Nuclear War-The Last Epidemic 5-6:30 p.m.-Somerset Medical Center, Somerville (Somerset Medical Center and AMNJ)

Feb.

Computer in Medicine 9 a.m.—Freehold Area Hospital (AMNJ)

Housing Application

217th ANNUAL MEETING THE MEDICAL SOCIETY OF NEW JERSEY April 29-May 2, 1983

Resorts International (headquarters hotel)	Single \$75.50	Twin \$75.50	Daily Rates \$161/\$201
Caesar's Boardwalk Regency	\$70.00	\$70.00	Rates quoted upon request
Claridge Hotel	\$65.00	\$65.00	Rates quoted upon request

Rates subject to 12% state and local taxes

ALL hotel reservations for the 217th Annual Meeting, MSNJ, will be handled by the Atlantic City Convention Bureau. Please send your housing application directly to the Bureau, 16 Central Pier, Atlantic City, NJ 08401. Complete your 1st, 2nd, and 3rd choices of hotel. All Delegates and Members are urged to make their hotel reservations early. Blocks of rooms will be available at Resorts International (headquarters hotel), the Claridge Hotel and Casino, and Caesar's Boardwalk Regency. The reservations deadline at all three hotels is March 29, 1983. All registrants will be charged for three nights: Friday, Saturday, and Sunday, April 29, April 30, and May 1, 1983.

MAIL THIS APPLICATION DIRECTLY TO THE ATLANTIC CITY CONVENTION BUREAU

16 Central Pier Atlantic City, NJ 08401

Please list 1st, 2nd, and 3rd choices; conf	irmation will come directly from he	otel.
1st Choice	2nd Choice	
3rd Choice		
Accommodations desired: ☐ Single ☐ Tw	rin □ Suite Parlor & 1 Bedroom □ Suite Parlor & 2 Bedrooms	
Name		•
Address		
City	State	Zip
Phone		
Will arriveTime	Will depart	Time
☐ Check if Official Delegate	County	

OBITUARIES

Dr. M. William Flothow, Jr.

Max William Flothow Jr., M.D., an emeritus member of our Morris County component, died on September 3, 1982. Born in 1917, Dr. Flothow earned a medical degree at the University of Nebraska School of Medicine in 1945. During his career, Dr. Flothow was affiliated with Memorial Hospital, Morristown, and Community Hospital, Hackettstown.

Dr. Patrick D. Gerard

At the grand age of 84, Patrick Daniel Gerard, M.D., of East Orange, died. Formerly the medical director for Newark's Board of Education, Dr. Gerard was a general practitioner in Newark for 60 years. Dr. Gerard earned his medical degree at Boston University in 1923. He was affiliated with Saint Michael's Medical Center, Newark, and Clara Maass Memorial Hospital, Belleville. In 1979, Dr. Gerard received MSNJ's Golden Merit Award for 50 years of dedicated medical service. Dr. Gerard was a member of the American Medical Association and of our Essex County component.

Dr. Joseph Lang

Joseph Lang, M.D., formerly of Woodbridge, died on September 3, 1982. An emeritus member of our Middlesex County component, Dr. Lang had retired to Florida. Born in 1907 in Hungary, Dr. Lang was graduated from the University of Prague, Czechoslovakia, in 1933. During his career, Dr. Lang was affiliated with Perth Amboy General Hospital. Dr. Lang was a member of the American Medical Association.

Dr. Edmund Lewandowski

Edmund Edward Lewandowski, M.D., an emeritus member of our Essex County component, died on August 7, 1982. Born in 1903, Dr. Lewandowski maintained a practice in Irvington from 1936 to 1959; in 1959, he retired to Florida. During World War II, Dr. Lewandowski served in the Medical Corps of the United States Army. He was a member of the American Medical Association.

Dr. Herman P. Miller

Word has been received of the death of Herman Paul Miller, M.D., an emeritus member of our Essex County component. Born in 1905, Dr. Miller was graduated from George Washington University School of Medicine, Washington, DC, in 1929. Dr. Miller was a member of the American Medical Association and a Fellow of the American College of Chest Physicians. During his career, Dr. Miller was affiliated with Newark City Hospital, Newark Beth

Israel Medical Center, and Presbyterian Hospital, all in Newark.

Dr. Amedeo C. Naclerio

Word has been received of the death of Amedeo Caesar Naclerio, M.D., on July 28, 1982. A family practitioner, Dr. Naclerio was a member of our Bergen County component. Born in 1912, Dr. Naclerio earned a medical degree at Marquette University, Wisconsin, in 1939. During his career, Dr. Naclerio was affiliated with Hackensack Hospital. He was a member of the American Medical Association.

Dr. Joshua I. Seidman

Joshua Issac Seidman, M.D., died on August 24, 1982, after a brief illness. Born in 1905 in Newark, Dr. Seidman was graduated from St. Bartholomew's University, England, in 1934. He served as a family practitioner in Newark for 45 years, retiring in 1976. Dr. Seidman was a member of the American Medical Association, an emeritus member of our Essex County component, and a Fellow of the American College of Angiology and of the American Geriatric Society. During his lengthy career, Dr. Seidman was affiliated with Newark Beth Israel Medical Center and St. James Hospital, Newark.

BOOK REVIEWS

Basic and Clinical Immunology. 4th Edition

D.P. Stites, M.D., J.D. Stobo, M.D., H.H. Fudenberg, M.D., J.V. Wells, M.D., (eds). Los Altos, CA, Lange Medical Publications, 1982. Pp. 775. Illustrated. (\$22)

This is the second pleasant opportunity I have had to review this excellent book. It was almost two years ago that I reviewed the third edition. At that time I stated "both basic and clinical immunology now are in their beginning stages and as more and more advances are made, it becomes more and more important that the practicing physician understands these beginnings." The publication of this fourth edition certainly supports this view.

There are four editors (3 editors are from the 1980 edition) and 53 authors. The editors also are chapter authors.

The book, a firmly bound, beautifully illustrated softcover, is comprised of three sections and 40 chapters. The appendix includes a "Glossary of Terms Commonly Used in Immunology and Acronyms and Abbreviations Commonly Used in Immunology." The appendix appears as does the index to be most complete. The sections are entitled basic immunology, immunologic laboratory tests, and clinical immunology. The content of the many chapters reflects the wide backgrounds in specialties of the many authors; these range from basic researchers in microbiology to those who are blood bank directors.

I strongly recommend this book for reading by practicing physicians and graduate students working in any area of immunology. It also should serve as an excellent reference text for medical students and residents in most specialties, particularly internal medicine and pathology. This subject represents the future of medical science and as such it must be understood by all of us.

Hugh F. Luddecke, M.D.

Becoming a Sexual Person

Robert T. Francouer, Ph.D. New York, NY, John Wiley and Sons, 1982. Pp. 550. (\$20.95)

The chapters in Becoming a Sexual Person are arranged in such a way that

they tell the story of human sexuality from the history and changing norms of sexual customs, physiology of sexual response, and diagnosis and treatment of sexual dysfunctions to the future of marriage and experimental options of conception. The intervening chapters deal with vivid details regarding the changing American sexual value systems, non-Christian views toward sexuality, and fundamental neuroanatomic physiological basis of sexual response. Although the recent advances in sexual physiology are not discussed (except the controversal "female ejaculation"), the book provides the reader with a basic overview of human sexuality. New relationship options also are addressed such as "man-sharing in the black community" and "intimate networks" in the white middle class. The illustrations are remarkable, including those that depict physically handicapped persons performing sex in unfamiliar situations (sex on wheelchair). The unique sexually transmitted diseases tables are most helpful for both beginners and professionals alike. A tabulated "effects" of commonly used drugs on sexual response also is outlined.

Although this book is designed primarily as a college textbook, both medical and paramedical can use this excellent work as a reference material. Rehabilitation specialists and other physicians, who are sensitized to many different attitudes toward sexuality that affect their patient's rehabilitation, are more likely to deal in a holistic way in the management of sexual dysfunctions.

Jose Florante J. Leyson, M.D.

Cancer-Associated Genodermatoses

Henry T. Lynch, M.D., and Ramon M. Fusaro, M.D. New York, NY, Van Nostrand Reinhold Company, Inc., 1982. Pp. 559. (\$32)

Cancer-Associated Genodermatoses attempts to gain insight into cancer etiology, prevention, and control by utilizing many references culled from the literature relating to the genodermatoses and said cancer-associations. Emphasis is made on familial atypical multiplemole melanoma syndrome (FAMMM) and xeroderma pigmentosum.

The editors have written specific chapters and contributors have enhanced their efforts, somewhat repetitiously, with chapters on dermatopathology, radiology, and immunology. All illustrations are in black and white, thus only average in reproduction.

Overall, the book is fairly good reference material, but not a text that would find much use in one's own medical library.

Murray Kahn, M.D.

Cardiac Arrhythmias, Practical ECG Interpretation. 2nd Edition.

Stelio Mangiola, M.D., and Michael C. Ritota, M.D. Philadelphia, PA, J.B. Lippincott Company, 1982. Pp. 261.

This new edition clearly meets its goal of providing "a simple, well-illustrated, practical guide for the rapid recognition of cardiac arrhythmias on the conventional electrocardiogram." As in the first edition, the most valuable part of the book is the voluminous section of self-assessment tracings and practice strips. The figures are extremely well chosen, nicely illustrated, and lucidly explained. I would suggest that time intervals be expressed in the more conventional form of msec in the next edition.

Some terms are obsolete and should be replaced as recommended by the Tenth Bethesda Conference on "Optimal Electrocardiography" (April 23, 1977, Washington, DC); these include wandering pacemaker, extrasystole, non-paroxysmal tachycardia, pseudofusion beat, hemiblock, high-grade block, unifocal, and end-diastole. Many of the illustrated arrhythmias have more than one suitable interpretation, and these problems in differential diagnosis should be amplified in future editions.

Prominent by their absence are discussions of His bundle electrography, calcium slow-channel depolarization and its causal relationship to reentry tachycardias, as well as the role of calcium blocking agents in the management of these arrhythmias.

I might offer a variety of other minor criticisms such as the identification of origin of a ventricular premature impulse by its surface contour, the reliance on the R on T phenomenon as the dominant criterion for "malignant" ven-

tricular premature impulses, the clinical meaning of "fine" and "coarse" atrial fibrillation, the value of Holter monitoring for contour alterations, and the lack of specificity for various axis deviations. My chief complaint, however, resides in the chapter on artificial pacemaker rhythms. The chapter is archaic and needs extensive updating to include the revised code for pacemaker identification (Circulation 64: 60A, 1981), and descriptions of innovations such as programmable and "reverse" pacing, pacing for tachycardias, and externally controlled pacing.

While this text is not intended for the sophisticated arrhythmologist, I recommend it highly to practicing physicians, house officers, cardiac nurses, and arrhythmia technicians.

Edwin L. Rothfeld, M.D.

Current Obstetric and Gynecologic Diagnosis and Treatment, 4th Edition

Ralph C. Benson, M.D., (ed). Los Altos, CA, Lange Medical Publications, 1982. Pp. 1038. (\$25)

This publication was a pleasure to review and will make a very fine comprehensive reference manual for the clinician as well as an extra source book for the medical student. One must overlook the occasional misprint and hope that subsequent editions are corrected. I even found a contributor listed for whom I could find no article.

The publication is edited by R.C. Benson, and a coterie of contributors are noted in their respective fields—Woodruff, Mickal, and Symmonds, to name a few. The illustrations are clear and expressive, and provide useful, pertinent information.

The manual is true to the name "current" with up-to-date information in all parameters of the specialty. It contains useful chapters on genetics and counseling.

I found the manual particularly useful as an instrument for review. I would select several conditions turning up during the course of my clinical practice and then I would review the subject matter in the manual. I found this an extremely helpful and timesaving way of reviewing and updating information for the sometimes busy clinician. So again, this is a most complete text especially useful for students as well as older clinicians who strive to maintain currency in the practice of this specialty.

Earl Kanter, M.D.

Diabetes Mellitus: Diagnosis and Treatment

Mayer B. Davidson, M.D. New York, NY, John Wiley & Sons, 1981. Pp. 480. Illustrated. (\$22.50)

Mayer B. Davidson, M.D., has compiled his personal concepts and methods of diagnosing and treating diabetes in 10 chapters of a book intended primarily for physicians and other professionals who provide care for patients with diabetes mellitus. The result is an excellent work that will enhance the knowledge and modify the clinical behavior of the reader—be he a student, house officer, primary physician, nurse clinician, physician assistant, or health educator.

The author, after describing the present etiological concepts of diabetes in a concise preface, plunges into and disposes of the diagnosis of diabetes mellitus in a clean, uncluttered chapter. The next six chapters, as promised, espouse the Davidson method of treatment. In an honest mode, the author sets goals in his general principles based on realistic perceptions of what we know at present or what we guesstimate will be best for the patient:

"The evidence that tight control of glucose concentration will have a marked ameliorating effect on the large-vessel diseases is not great. However, recent and extremely convincing data from studies in animals and humans show that strict diabetic control will ameliorate, prevent, or even reverse microangiopathic changes."

Those physicians who are disinclined to calculate a specific diet for each patient will find the chapter on dietary therapy informative and easy to deal with. The tables and appendix materials are very useful.

Insulin therapy is a major contribution of this book—from institution of insulin therapy, to the adverse effects of insulin, to its use in the perioperative period and the intravenous low-dose technique for D.K.A. I regret that specific discussion of insulin in gestational diabetes and the known diabetic who becomes pregnant were not included. One must applaud the author's denunciation of the sliding-scale method of insulin administration.

Oral hypoglycemic drugs are dealt with more than amply in a chapter that also evaluates the infamous UGDP Study.

The office management of the diabetic patient is current and complete. Dr. Davidson discusses office and selfglucose monitoring, a very valid approach to semiquantitative urine glucose testing, glycosylated hemoglobin levels as well as clinical evaluation techniques. His "sick day rules" will stand the reader and his patient in good stead and may reduce the number of unnecessary phone calls and preventable complications.

Davidson and his associates developed one of the best monographs on diabetes education for the nurse, patient, and family, the likes of which cannot be found elsewhere by the busy practitioner. Likewise, his colleagues prepared a chapter on the emotional aspects of diabetes which is a masterpiece.

Why a chapter on hypoglycemia? I found it unrelated to the book as a whole, but very welcome because all physicians are beleaguered by patients with reactive hypoglycemia, neurotics with impaired glucose tolerance, and normal individuals with flat glucose tolerance curves.

This book by Mayer D. Davidson, M.D., is a first-person explicit primer on the diagnosis and treatment of diabetes mellitus. I highly recommend it to clinicians and other professionals.

Arthur Krosnick, M.D.

Differential Diagnosis in Dermatopathology

A. Bernard Ackerman, M.D., John Niven, M.D., Jane M. Grant-Kels, M.D. Philadelphia, PA, Lea & Febiger, 1982. Pp. 195. (\$86)

This book should be titled "Ackerman's Guide to Selected Dermatopathological Look-Alikes." Differential Diagnosis in Dermatopathology proposes to sort out the fine distinctions between 45 pairs of skin conditions with shared histological features. This goal is accomplished nicely using a simple and uniform teaching format throughout the book. Parallel tables of comparison fill an entire page: the tables face a page of parallel photomicrographs (in color, and at low, medium, and high magnifications) that illustrate the cogent points. Photographs of the clinical lesions thoughtfully are added to complete the feel for the subject. The startling disparity between the gross appearances of some of these histological look-alikes unintentionally emphasizes that the shortest route to the correct diagnosis is the one jointly charted by clinician and pathologist.

Following each photoessay are two pages of commentary on one or both of

the disorders. A variety of clinical and pathological tidbits, observations, and hypotheses are presented, for, as the preface warns, the text represents the opinions of the authors. The book's greatest weakness is the lack of references, or a bibliography, to further guide the reader. Although appended by a glossary, a basic dermatopathological background is needed to obtain the text's benefits. The book should be a help to pathology and dermatology residents preparing for board examinations.

Christopher M. Papa, M.D.

Life Stress

Stacey B. Day, M.D. New York, NY, Van Nostrand Reinhold Company, Inc., 1982. Pp. 409. (\$34)

Life Stress is a potpourri of articles on the causes, manifestations, and (to a lesser extent) treatments of stress and various stress-related problems. The chapters cover a broad array of topicsfrom reviews of the physiology and biochemistry of stress to chapters entitled, "Terrorism as a Form of Communication," "Child Abuse and Stress," and "Helping Rape Victims in Rural Areas." The chapters are written by scientists and practitioners, some rather eminent, from all over the world and from a variety of disciplines. Some of the chapters are literature reviews, others are theoretical pieces, and a few are reports of findings from a single piece of research. The social, biological, psychoanalytic, and behavioral perspectives are represented. The book bears the influence of the encyclopedic mind of one of its contributors, and the man towhom it is dedicated: Hans Selve.

The problem is that the book tries to do too much in too little space. The median length of the 51 chapters is only seven pages, with a couple of chapters only three to four pages. Although some chapters are pithy gems, too many chapters are oversimplified ex cathedra pronouncements or condensed and jargon-filled reviews of vast research areas.

Upon very close reading, many of the chapters are tightly reasoned and even profound. But it is difficult to imagine who would benefit from reading all of them. If one knows little of the area, the material is mostly too condensed to make much sense. If one is an expert—if anyone can be an expert on such a wide range of topics—then one knows the material already. Perhaps its greatest use will be to scholars who want to be sure that no stone is left unturned, or to clinicians who need a refresher course on material they may have learned years ago.

Paul M. Lehrer, Ph.D

Manual for Vascular Medicine and Surgery

Teruo Matsumoto, M.D. Norwalk, CT, Appleton-Century-Crofts, 1982. Pp. 262. (\$22.50)

When we were interns first making rounds on clinical services we carried helpful manuals such as *Physicians Handbook* and *Merck Manual*. Nowadays, our residents carry Condon's *Manual of Surgical Therapeutics*, and McEntyre's *The Care of the Surgical Patient*. These quick references are valuable crutches for the harried house officers who at first are overwhelmed by the impact of clinical medicine on their information stores.

Matsumoto's Manual for Vascular Medicine and Surgery, appropriately euphonious, now will be added to the list. Although soft-covered and relatively light for a textbook, it may be too large for most pockets, but it is valuable enough to merit the effort of being carried on rounds.

By design, such a manual must cover in brief a vast variety of topics in vascular diseases; this has been accomplished satisfactorily. All of the major subjects concerning arterial and venous diseases are given approximately equal weight, regardless of the prevalence of the disease in clinical practice. Each topic is presented simply, each is well illustrated, and there are adequate reference lists at the end of each chapter.

It is unfortunate that the book has been divided into sections on medical and surgical management, as if these two were not a continuum. One reads in the beginning of the book for example, the medical treatment of venous disease with scarcely a mention of surgery, and one must look to the end of the book to find the surgical management. In fact, the surgical management of such a common disorder is given short shrift, with no description of how varicose vein surgery is performed. Likewise, the medical and surgical aspects of cerebrovascular disease are discussed in two sections, while most vascular specialists would find it difficult to make a distinction between the two. Nevertheless, the basic material is there, and it is dealt with fairly and accurately.

If the student is interested in finding judgments on the merits of various treatments he will not find it in this manual. Although the pathology, etiology, symptomatology, diagnostic techniques, indications, and operations are put forth concisely, if not summarily, one can acquire no idea, for example, of whether or not femoropopliteal bypass with an autogenous vein is superior to one with synthetic material. Nor can one find long-term results of the various vascular prostheses, the frequency and type of postoperative complications, and the rehabilitative aspects of each therapy. Complications are mentioned briefly, but their import is not weighted, nor can one gain insight into benefits versus risks. Perhaps it is too much to expect all of this from a manual, but I find this omission a modest deficiency.

Nevertheless, despite these criticisms, I intend to purchase this book for my students and recommend it to them as a primer for their initial exposure to the study of vascular diseases. It is too bad that the publishers could not reduce the \$22.50 price tag.

Victor Parsonnet, M.D.

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Table of Pages January 1-76 July Transactions Tr1-Tr52 February 77-170 August 625-704 March 171-264 September 705-788 April 265-356 October 789-874 May 357-440 November 875-960 June 441-536 December 961-1046

Key

*—Article
ra—Review article
sa—State of the art
ec—Electrocardiogram
cr—Case report
cn—Clinical note
ed—Editorial

cm-Commentary

mh—Medical history
†—Obituary
pi—Personal item
br—Book review
le—Letter
op—Opinion
tr—Transactions
bt—Board of Trustee item

Audiometria Concenius in Institutionalinal M

Α

Aarons, William B., M.D., Atlantic City	cn755
Abrams, Meyer L., M.D.	. le157
Absenteeism at Board Meetings	bt603
Academy of Medicine of New Jersey, The	ed802
Adrenocortical Carcinoma-Dwyer; Colfax; Khanna	. cr843
Advances in the Treatment of Inborn Errors of Metabolism-	_
Cohen	cr747
Agarwal, Shashi K., M.D., Newarkec315,	cr404
Agent Orange, Physicians and	
Ali, Magid, M.D., Teaneck	cr319
Allen, Chester B., Jr., M.D.	+618
Allopurinol, An Unusual Case of Hypersensitivity Vasculitis	010
Probably Due to—Falco; Daniels; Conklin	cr409
Alpert, Joseph, M.D., Newark	*985
Alternate Delegates, Seating of	bt935
AMA Dues for Retired and Semiretired Physicians	bt689
Amaram, Niranjan, M.D., New Brunswick	cr121
Amendments to the Bylaws, Proposed	bt 337
Amorosa, J.K., M.D., Piscataway	sa114
-, L.F., M.D., Piscataway ra109,	
Amyloidosis: An Unusual Association, Mitral Valve	ou
Prolapse—Austin; Chen; Batuman	cr577
Andre, Robert S., M.D.	. †699
Andreozzi, Marie	. le947
Annual Meeting Attendance	bt689
-Meeting Daily Schedule 70, 144, 242, 338, 936	. 1022
-Meeting, 1983	bt934
-Review of Neuroscience-Fellman	br532
Antipneumococcal Immunization, Postsplenectomy Sepsis	
in an Adult Following-Trooskin; Greco	cr221
Appeal: Publications on Grief and Bereavement-Dietz	
Arachnoid Cyst Associated with Psychological Disturbance-	
Colameco; DiTomasso	cr209
Archivist Historian for MSNJ, Morris H. Saffron,	
M.D	ed719
Areson, Robert A., M.D.	pi65
Art, Works of Public	ed642
Arterial Oxygen Saturation and Cardiac Rhythm during	
Transoral Fiberoptic Bronchoscopy—Schiffman;	+722
Westlake; Fourre; Leonard	. *123
of the Coronary Circulation—MacMillan	*1001
As We Face Another Spring—Nevin	1001
Atrial Repolarization Wave and Spurious ST Segment	008
Deviation, The—Agarwal; Haft	ec315
Bernation, The Algarwai, Halt	00313

Audiometric Screening in Institutionalized New Jersey	
Mental Patients, Head and Neck Examination	
and—LaBagnara; Winarsky; Han	*741
Austin, Stephen M., M.D., Newark	cr577
Avecillas, Efrain, M.D.	†255
_	
В	
Balloon Pumping: An Overview of Its Current Clinical	
Applications, Intraaortic-Pores; Jacobs	*485
Barach Receives Fellowship	773
Basic and Clinical Immunology. 4th Edition-Luddecke .	br1032
Bastides, Jefferson, M.D., Livingston	*100
Batuman, Vecihi, M.D., Newark	cr577
Beall, William, M.D.	†255
Beaugard, Edouard P., M.D., Teaneck	cr747
Becoming a Sexual Person—Leyson	
Behavioral Pharmacology of Human Drug Dependence-	
Sugerman	br352
Behrens, Herman, M.D.	†699
Benjamin, Joseph, M.D.	†255
Benzodiazepines: A Review of Research Results—	
Sugerman	br352
Berger, Richard S., New Brunswick	ra657
Bernard, Michael, B.S., Piscataway	
Bernstein, Arthur, M.D.	141
Bevinetto, Jack R., M.D.	†618
Biczak, Arkad K., M.D.	†436
Bierenbaum, Marvin L., M.D., Montelair	
Biliary Tract Disease: A Retrospective Study, Cholescintig	raphy
and Sonography in the Diagnosis of—Sirotta	
Biopsy Using Direct Imaging Techniques, Percutaneous Fi	ine-
Needle—Jewel; Kimler	7/31
Bleeding with Technetium 99m Sulfur Colloid Scintigraph	16613
Localization of Gastrointestinal—Parrella:	у,
Warshauer; Rothman	0.675
Blood and Blood Components, Information for the Use o	
—Bank Inventory Control, Use of a Type and Screen	1 31
Program in Hospital—Muschenheim	*823
-Banking-Colosimo	
Blue Shield Regulations	
Bocchini, Joseph, M.D.	
Book Review Editor Named	ed375
-Reviews 72, 166, 257, 352, 532, 620, 783, 869, 9	56, 1032
Botulism, Electrodiagnosis in the Evaluation of	,
Progressive Hypotonia in Infancy with Particular	
Reference to Infant—Schrager; Diamond;	
Rosnowski; Waran	cr125

-in Central New Jersey, Infant-Amaram; Patel;	Ciccone, Edwin L., M.D
Papageorgiou; Kesarwalacr121	Cinotti, Alfonse A., M.D., Newark sa203
Bowser, Lucius A., R.P., Trenton	Civilian Military Contingency Hospital System—Karel op599
Boylan, Matthew E., M.D ed13, †71	Clark, Donald L., M.D., Browns Mills*835 —,Orlo H., M.D
Braunstein, Edgar G., M.D. le947 —, Robert A., M.D., Newark sa203	Clinical Cardiology—Rothfeld
Breen Named President-Elect of Specialty Society	—Diabetes: Modern Management—Einhorn br783
Brendlinger, Dirck L., M.D., Marlton	-Observations with Intravenous Prostaglandin E, in
Brener, Bruce J., M.D., Newark*985	Peripheral Vascular Disease—Feldman; Alpert;
Brief, Donald K., M.D., Newark*985	Dick; Brief; Goldenkranz; Brener; Parsonnet *985
Britman, Naphtali A., M.D., Plainfieldcr925	—Strategies in Adult Asthma—Singer
Brolin, Robert E., M.D., Piscataway*383 Bronchoscopy, Arterial Oxygen Saturation and Cardiac	—Use of Recombinant DNA Techniques: The Antenatal Diagnosis of Sickle Cell Anemia—Jones; Romano;
Rhythm during Transoral Fiberoptic—Schiffman;	Bernard; Shaw; Ramirez*735
Westlake; Fourre; Leonard*723	CMDNJ Notes
Broviac Catheter, Prolonged Total Parenteral Nutrition Using	CME Calendar 67, 159, 251, 345, 433, 529,
the-Krasna; Shapira*909	618, 697, 777, 861, 949, 1027
Brown-Séquard Syndrome and Piebaldism—	Cohen, Jerald L., M.D., Newark
Stefaniwsky; Nissenblatt	Cohn, Joseph D., M.D., Livingston*100 Colameco, Stephen, M.D., Voorhees
Budd, Daniel C., M.D., Paterson	Colfax, Jane A., M.D., Paterson cr843
Buechle, Carl F., M.D	Collaborative Physician-Nurse Practice: Is This the Time? ed89
Bugs—Reactions in People, New Jersey—Berger; Papa ra657	Colosimo, Frederico, Trenton
Building Block of Judgment, The—Brendlinger op763	Commissioner of Health bt420
Butenas vs. the State Board of Medical Examiners bt143	Committee on Impaired Physicians bt232 —on Medicaid bt233
Byer, Arnold, M.D., Newark*553 Bypass, Experience with Extracranial/Intracranial—Byer;	—on Medical Defense and Insurance bt233
Moss; Hubbard; Rubin; Jacobs*553	on Publication bt146, bt769
	Committees and Councils, 1982-1983
	-and Special/Liaison Representatives, 1982-1983 Special 851
C	Common Source Outbreak, Trichinosis, A—Parman cr215 Comparative Study of Two Nocturnal Penile Tumescence
Camp for Children, Summer	Monitors—Leyson; Powell*647
Campo, Frank, M.D bt231	Competition: The Democratic Way-Rogers le694
Canavan, David I., M.D	in Medicine-Blakeyle615
Cancer Associated Genodermatoses—Kahn br1032	Complications of Pediatric Surgery—Rosen
Research and Treatment Center at UMDNJ	Computer Software bt232
-,Survival Among Patients with Lung-Safirstein; Goldshlack; Sarama*573	Conklin, Robert D.O., Long Branch cr409
Cannula for Vascular Access, The Subclavian Vein—Previti;	Continuous Subcutaneous Insulin Infusion Via Portable
Walch; Aarons cn755	Pumps in Ambulatory Diabetics—Robins; Bucholtz;
Carcinoma, Adrenocortical—Dwyer; Colfax; Khanna cr843	Pelle; D'Agostino*490
of the Colon and Rectum, Immune Responses in—Greco . *19	Controlled Dangerous Substances Act, The Physician's Responsibilities Under the New Jersey—Bowser 521
-of the Thyroid, Squamous Cell-Budd; Fink; Rashti; Woo	Coronary Arteriography for the Diagnosis and Treatment of
Cardiac Arrhythmias, Practical ECG Interpretation.	Disease of the Coronary Circulation-MacMillan *1001
2nd Edition—Rothfeld br1032	-Heart Disease, Diet and-Winston
—Diagnosis, Noninvasive Techniques in—MacMillan;	—Heart Disease, Relationship of Hypercholesterolemia to— Bierenbaumsa35
Zeiger	—Heart Disease, Universal Diet Recommendations for
Carpal Tunnel Syndrome, Microsurgical Treatment of—	Prevention of
Hubschmann; Weisbrot; Krieger *291, le529	Costa Rican Warrior, A ed14
-Tunnel Syndrome, Microsurgical Treatment of-	Council on Medical Services
Massengillle529	-on Public Relations bt146
The second of th	Crisis in Sickle Cell Trait: A Case of Probable Trait
Tunnel Syndrome, Practical Considerations in the	Crisis in Sickle Cell Trait: A Case of Probable Trait With Catastrophic Neurologic Presentation—
Treatment of—Davne*295	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjocr40
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjocr40 Cross-sectional Echocardiography—MacMillan
Treatment of—Davne	With Catastrophic Neurologic Presentation— Gisser; Tiptohardjo
Treatment of—Davne	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjo
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjo
Treatment of—Davne *295 Carter, Joseph F.S., M.D. *1164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay	With Catastrophic Neurologic Presentation— Gisser; Tijptohardjo cr40 Cross-sectional Echocardiography—MacMillan br956 Crowder, Anne S., R.N., East Orange *812 Cults, The Destructive—Scales op517 Current Cardiology, Volume 2—Poppick br783 —Medical Diagnosis and Treatment, 1982—Riegel br532 —Obstetric and Gynecologic Diagnosis and Treatment.
Treatment of—Davne	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjo
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; c680 Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583	With Catastrophic Neurologic Presentation— Gisser, Tjiptohardjo cr40 Cross-sectional Echocardiography—MacMillan br956 Crowder, Anne S., R.N., East Orange *812 Cults, The Destructive—Scales op517 Current Cardiology, Volume 2—Poppick br783 —Medical Diagnosis and Treatment, 1982—Riegel br532 —Obstetric and Gynecologic Diagnosis and Treatment. 4th Edition—Kanter br1033 —Pediatric Diagnosis and Treatment—Katcher br620
Treatment of—Davne *295 Carter, Joseph F.S., M.D. *1164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583 Cheung, Nae K., M.D., Newark ra666	With Catastrophic Neurologic Presentation— Gisser; Tijptohardjo
Treatment of—Davne *295 Carter, Joseph F.S., M.D. *1164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583 Cheung, Nae K., M.D., Newark 1a666 Child in Sports, The—Farley *567	With Catastrophic Neurologic Presentation— Gisser, Tjiptohardjo cr40 Cross-sectional Echocardiography—MacMillan br956 Crowder, Anne S., R.N., East Orange *812 Cults, The Destructive—Scales op517 Current Cardiology, Volume 2—Poppick br783 —Medical Diagnosis and Treatment, 1982—Riegel br532 —Obstetric and Gynecologic Diagnosis and Treatment. 4th Edition—Kanter br1033 —Pediatric Diagnosis and Treatment—Katcher br620
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583 Cheung, Nae K., M.D., Newark ra666 Child in Sports, The—Farley *567 Children with Diabetes, For 524 Cho, Yong M., M.S., Piscataway *915	With Catastrophic Neurologic Presentation— Gisser; Tijptohardjo
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583 Cheung, Nae K., M.D., Newark ra666 Child in Sports, The—Farley *567 Children with Diabetes, For 524 Cho, Yong M., M.S., Piscataway *915 Cholankeril, John V., M.D., Elizabeth *559	With Catastrophic Neurologic Presentation— Gisser; Tijptohardjo
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the *909 Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583 Cheung, Nae K., M.D., Newark ra666 Child in Sports, The—Farley *567 Children with Diabetes, For 524 Cho, Yong M., M.S., Piscataway *915 Cholankeril, John V., M.D., Elizabeth *559 Choleystocholedochal Fistula—Spence, Juarique cr587	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjo cr40 Cross-sectional Echocardiography—MacMillan br956 Crowder, Anne S., R.N., East Orange *812 Cults, The Destructive—Scales op517 Current Cardiology, Volume 2—Poppick br783 —Medical Diagnosis and Treatment, 1982—Riegel br532 —Obstetric and Gynecologic Diagnosis and Treatment. 4th Edition—Kanter br1033 —Pediatric Diagnosis and Treatment—Katcher br620 —State Legislation 935 Curtis, Graham T., M.D., Newark cr131
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583 Cheung, Nae K., M.D., Newark ra666 Child in Sports, The—Farley *567 Children with Diabetes, For 524 Cho, Yong M., M.S., Piscataway *915 Cholankeril, John V., M.D., Elizabeth *559 Cholecystocholedochal Fistula—Spence, Juarique cr587 Cholescintigraphy and Sonography in the Diagnosis of Biliary	With Catastrophic Neurologic Presentation— Gisser; Tijptohardjo
Treatment of—Davne *295 Carter, Joseph F.S., M.D. *1164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjo cr40 Cross-sectional Echocardiography—MacMillan br956 Crowder, Anne S., R.N., East Orange *812 Cults, The Destructive—Scales op517 Current Cardiology, Volume 2—Poppick br783 —Medical Diagnosis and Treatment, 1982—Riegel br532 —Obstetric and Gynecologic Diagnosis and Treatment. 4th Edition—Kanter br1033 —Pediatric Diagnosis and Treatment—Katcher br620 —State Legislation 935 Curtis, Graham T., M.D., Newark cr131 D D'Agostino, Margaret, R.N., Springfield *490 Daniels, Richard A., M.D., Long Branch cr409 Davidoff, Steven, M.D., Cherry Hill sa919 Davidson, J. Thomas, M.D., Princeton cr583
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583 Cheung, Nae K., M.D., Newark ra666 Child in Sports, The—Farley *567 Children with Diabetes, For 524 Cho, Yong M., M.S., Piscataway *915 Cholecystocholedochal Fistula—Spence, Juarique cr587 Cholecstocholedochal Fistula—Spence, Juarique cr587 Cholecstocholedochal Fistula—Spence, Juarique cr587 Cholecstocholedochal Fistula—Spence, Juarique cr587 Cholecstocholedochal Fistula—Spence, Juarique cr587 Cholesterol Pericarditis: The Third Autopsied Case in the United States with a Study of Its Histogenesis—	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjo
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583 Cheung, Nae K., M.D., Newark ra666 Child in Sports, The—Farley *567 Children with Diabetes, For 524 Cho, Yong M., M.S., Piscataway *915 Cholankeril, John V., M.D., Elizabeth *559 Cholecystocholedochal Fistula—Spence, Juarique cr587 Cholescintigraphy and Sonography in the Diagnosis of Biliary Tract Disease: A Retrospective Study—Sirotta *187 Cholesterol Pericarditis: The Third Autopsied Case in the United States with a Study of Its Histogenesis— Gåspår cr323	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjo cr40 Cross-sectional Echocardiography—MacMillan br956 Crowder, Anne S., R.N., East Orange *812 Cults, The Destructive—Scales op517 Current Cardiology, Volume 2—Poppick br783 —Medical Diagnosis and Treatment, 1982—Riegel br532 —Obstetric and Gynecologic Diagnosis and Treatment. 4th Edition—Kanter br1033 —Pediatric Diagnosis and Treatment—Katcher br620 —State Legislation 935 Curtis, Graham T., M.D., Newark cr131 D D D'Agostino, Margaret, R.N., Springfield *490 Daniels, Richard A., M.D., Long Branch cr409 Davidoff, Steven, M.D., Cherry Hill sa919 Davidson, J. Thomas, M.D., Princeton cr583 Davis, Hobson A., M.D 1955 —Stephen, M.D., Newark cr509
Treatment of—Davne	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjo cr40 Cross-sectional Echocardiography—MacMillan br956 Crowder, Anne S., R.N., East Orange *812 Cults, The Destructive—Scales op517 Current Cardiology, Volume 2—Poppick br783 —Medical Diagnosis and Treatment, 1982—Riegel br532 —Obstetric and Gynecologic Diagnosis and Treatment. 4th Edition—Kanter br1033 —Pediatric Diagnosis and Treatment—Katcher br620 —State Legislation 935 Curtis, Graham T., M.D., Newark cr131 D D'Agostino, Margaret, R.N., Springfield *490 Daniels, Richard A., M.D., Long Branch cr409 Davidoff, Steven, M.D., Cherry Hill sa919 Davidson, J. Thomas, M.D., Princeton cr583 Davis, Hobson A., M.D 1955 —,Stephen, M.D., Newark cr509 Davne, Albert, M.D., Trenton *295
Treatment of—Davne *295 Carter, Joseph F.S., M.D. †164 Case Against the Missionary Position, The—Smith op228 —of Turcot Syndrome: Dilemma Resolved—Rothman; Su; Kalkay cr680 Caterinicchio, Russell P., Ph.D., Trenton *895 Catheter, Prolonged Total Parenteral Nutrition Using the Broviac—Krasna; Shapira *909 Cenizal, Jesus S., M.D., Elizabeth *559 Chandler, James J., M.D., Princeton cr583 Cheung, Nae K., M.D., Newark ra666 Child in Sports, The—Farley *567 Children with Diabetes, For 524 Cho, Yong M., M.S., Piscataway *915 Cholankeril, John V., M.D., Elizabeth *559 Cholecystocholedochal Fistula—Spence, Juarique cr587 Cholescintigraphy and Sonography in the Diagnosis of Biliary Tract Disease: A Retrospective Study—Sirotta *187 Cholesterol Pericarditis: The Third Autopsied Case in the United States with a Study of Its Histogenesis— Gåspår cr323	With Catastrophic Neurologic Presentation— Gisser; Tjiptohardjo cr40 Cross-sectional Echocardiography—MacMillan br956 Crowder, Anne S., R.N., East Orange *812 Cults, The Destructive—Scales op517 Current Cardiology, Volume 2—Poppick br783 —Medical Diagnosis and Treatment, 1982—Riegel br532 —Obstetric and Gynecologic Diagnosis and Treatment. 4th Edition—Kanter br1033 —Pediatric Diagnosis and Treatment—Katcher br620 —State Legislation 935 Curtis, Graham T., M.D., Newark cr131 D D D'Agostino, Margaret, R.N., Springfield *490 Daniels, Richard A., M.D., Long Branch cr409 Davidoff, Steven, M.D., Cherry Hill sa919 Davidson, J. Thomas, M.D., Princeton cr583 Davis, Hobson A., M.D 1955 —Stephen, M.D., Newark cr509

Deaths in New Jersey, 1980, Maternal—Hansen; Gregory *302	Emphysema, Scrotal—Moore; McNicholas; Niguidula;
Delinquent Members, Reinstatement of	Clark*835 Encephalopathy, Hepatic—Davidoff; Werbitt
DeRosa, Vincent A., M.D	Epstein, Martin, M.D ed641
Desposito, Franklin, M.D., Newark	Erlichman, I. Fulton, M.D.
Destructive Cults, The—Scales op517	Euphemism, A Word by Any Other Word-Bernstein 141
Deviation from Standard Care, Subacute Endocarditis—	Excessive Fee Regulation bt601
Smith	Experience with Extracranial/Intracranial Bypass—Byer;
Diabetes, For Children with	Moss; Hubbard; Rubin; Jacobs*553
—Mellitus: Diagnosis and Treatment—Krosnick br1033	Eye Health Screening Program bt420, bt519
Diabetic Doctor Looks at Diabetes, His and Yours, A— Einhorn br956	F
-Ketoacidosis with Massive Lipid Elevations, Spurious	•
Hyponatremia in—Goldman; Kashani	Fager, Rudolph, M.D
-Retinopathy, The Present Management of-	Falco, David, M.D., Long Branch
Braunstein; Cinotti sa203	Family Medicine at UMDNJ-New Jersey Medical School,
Diabetics, Continuous Subcutaneous Insulin Infusion Via	Funding For
Portable Pumps in Ambulatory—Robins; Bucholtz;	-Practice Centers
Pelle; D'Agostino*490 Diagnosis and Management of Diabetes Mellitus—	Farley, William J., M.D., Brielle*567
Einhorn br701	Fayemi, A. Olusegun, M.D., Teaneck cr319
—and Management of Obstetric Emergencies—Pelosi br956	Federal Compensation for Medical Services
-of Attending Physician, Final bt1019	Feldman, Sheldon M., M.D., Newark*985
—Related Groups bt769	Fellman, Damon M., M.D. le859 Ferguson, Diane, R.N., Newark *991
Diamond, Martin, M.D., Summitcr125	Feuerstein Instrumental Enrichment: A Double Blow to
Dick, Leon S., M.D., Newark*985	Bias, Plastic Surgery and ed889
Diener, Samuel, M.D., Newark	Fieber, Stanley, M.D., Livingston*100
Diet and Coronary Heart Disease—Winston	Fifth Pathway; The Returns for the Effort,
Disease, Universal	New Jersey's—French; Semen*903
Dietz, Morton le247	Filippone, Ames L., Jr., M.D. le64
Differential Diagnosis in Dermatopathology-Papa br1033	Fine-Needle Biopsy Using Direct Imaging Techniques
Discrimination Against the Mentally III—Garber ed184	—Jewel; Kimler
Disease in New Jersey: A Cluster of 4 Cases and 13	-, Stanley J., M.D
Sporadic Cases, Lyme—Slade; Lenz*496	Fishbein, Elliot, M.D
Dissociation between Stainable Marrow and Liver Iron	Fisher, Bruce D., M.D., Plainfieldcr925
following Iron-Dextran Therapy—Ali; Fayemi; Laraia; Kaspercr319	Fishkoff, Alexander H., M.D
DiTomasso, Robert A., Ph.D., Voorhees	Fistula, Cholecystocholedochal—Spence, Juarique cr587
DNA Techniques: The Antenatal Diagnosis of Sickle Cell	Flail Mitral Leaflet: An Echocardiographic Diagnosis
Anemia, Clinical Use of Recombinant-Jones;	—Agarwal; Haft
Romano; Bernard; Shaw; Ramirez*735	Flothow, M. William, Jr., M.D. †1031 Formica, Palma E., M.D. ed641
Dobson, Henry, M.D	Fost, Arthur F., M.D. *479; le776
Doboy, Joseph, M.D	Foundation of the University of Medicine and
Donnelly, B., M.D., Summit	Dentistry ed185, le248, bt337, bt421, bt1020
DRG System of Reimbursement bt520, 1019	Fourre, Jon A., New Brunswick*723
DRGs and Medical Practice: Meeting the Challenge of	Frederick, George F., M.D
Incentive Reimbursement—Caterinicchio;	Freifeld, Stephen F., M.D. le64 French, Gordon N., M.D., Piscataway *903
Warren*895	Friend in City Hall, A
Drug Interactions in Anesthesia—Fisher	
Drugs, New 513, 595, 683, 761	
	Fundamental Cardiovascular and Pulmonary Physiology—Rothfeld br620
Dual Fee System bt602	Physiology—Rothfeld
Dual Fee System bt602 Dubovy, Carl, M.D. le776	
Dual Fee System bt602	Physiology—Rothfeldbr620
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D., †700	Physiology—Rothfeld
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D., †700	Physiology—Rothfeldbr620
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D. †700 Dwyer, William A., Jr., M.D., Paterson cr843	G G Gantt, Margaret H., M.D. †781 Garber, Robert S., M.D. ed84, pi249, e802 Gáspár, István A., M.D., Englewood cr323 Gellene, Rosemary Agnes, M.D. ed641
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D. †700 Dwyer, William A., Jr., M.D., Paterson cr843	G T/81 Gantt, Margaret H., M.D. †781 Garber, Robert S., M.D. ed84, pi249, e802 Gáspár, István A., M.D., Englewood cr323 Gellene, Rosemary Agnes, M.D. ed641 General Urology, 10th Edition—Stackpole br72
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D. †700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D. †781 Garber, Robert S., M.D. ed84, pi249, e802 Gáspár, István A., M.D., Englewood cr323 Gellene, Rosemary Agnes, M.D. ed641 General Urology, 10th Edition—Stackpole br72 Genetics and Breast Cancer—Grossman br257
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet:	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D. †781 Garber, Robert S., M.D. ed84, pi249, e802 Gáspár, István A., M.D., Englewood cr323 Gellene, Rosemary Agnes, M.D. ed641 General Urology, 10th Edition—Stackpole br72 Genetics and Breast Cancer—Grossman br257 Gerard, Patrick D., M.D. †1031
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D. †700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D. †781 Garber, Robert S., M.D. ed84, pi249, e802 Gáspár, István A., M.D., Englewood cr323 Gellene, Rosemary Agnes, M.D. ed641 General Urology, 10th Edition—Stackpole br72 Genetics and Breast Cancer—Grossman br257 Gerard, Patrick D., M.D. †1031 Geriatric Imperative: An Introduction to Gerontology and
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D.
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D. †700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D.
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D., 7700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation —Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D. †781 Garber, Robert S., M.D. ed84, pi249, e802 Gáspár, István A., M.D., Englewood cr323 Gellene, Rosemary Agnes, M.D. ed641 General Urology, 10th Edition—Stackpole br72 Genetics and Breast Cancer—Grossman br257 Gerard, Patrick D., M.D. †1031 Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics, The—Krosnick br257 Gering, Rudolph C., M.D., 1930-1982 ed373 German, George B., M.D. †164 Gilbert, Liane M., M.A., Shrewsbury *95, 1e860
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D. †700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation —Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D.
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation —Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946 Eighth-Nerve Disorders in the Learning Disabled Child,	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D. †781 Garber, Robert S., M.D. ed84, pi249, e802 Gáspár, István A., M.D., Englewood cr323 Gellene, Rosemary Agnes, M.D. ed641 General Urology, 10th Edition—Stackpole br72 Genetics and Breast Cancer—Grossman br257 Gerard, Patrick D., M.D. †1031 Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics, The—Krosnick br257 Gering, Rudolph C., M.D., 1930-1982 ed373 German, George B., M.D. †164 Gilbert, Liane M., M.A., Shrewsbury *95, le860 —,Roger W., M.S. le860 Gillette, Burton, M.D., Livingston *100
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation—Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946 Eighth-Nerve Disorders in the Learning Disabled Child, Medical Evaluation and Treatment of—	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D. †781 Garber, Robert S., M.D. ed84, pi249, e802 Gáspár, István A., M.D., Englewood cr323 Gellene, Rosemary Agnes, M.D. ed641 General Urology, 10th Edition—Stackpole br72 Genetics and Breast Cancer—Grossman br257 Gerard, Patrick D., M.D. †1031 Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics, The—Krosnick br257 Gering, Rudolph C., M.D., 1930-1982 ed373 German, George B., M.D. †164 Gilbert, Liane M., M.A., Shrewsbury *95, le860 —Roger W., M.S. le860 Gillette, Burton, M.D., Livingston *100 Gisser, Susan D., M.D., Camden cr40
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D. †700 Duyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation —Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946 Eighth-Nerve Disorders in the Learning Disabled Child, Medical Evaluation and Treatment of— Westerman; Gilbert; Madusky *95	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D. †781 Garber, Robert S., M.D. ed84, pi249, e802 Gáspár, István A., M.D., Englewood cr323 Gellene, Rosemary Agnes, M.D. ed641 General Urology, 10th Edition—Stackpole br72 Genetics and Breast Cancer—Grossman br257 Gerard, Patrick D., M.D. †1031 Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics, The—Krosnick br257 Gering, Rudolph C., M.D., 1930-1982 ed373 German, George B., M.D. †164 Gilbert, Liane M., M.A., Shrewsbury *95, le860 —,Roger W., M.S. le860 Gillette, Burton, M.D., Livingston *100 Gisser, Susan D., M.D., Camden cr40 Global Review of Intrasplenic Pancreatic Pseudocysts:
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation—Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946 Eighth-Nerve Disorders in the Learning Disabled Child, Medical Evaluation and Treatment of—	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D.
Dual Fee System bt602 Dubovy, Carl, M.D. le76 Dunn, John S., Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation —Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946 Eighth-Nerve Disorders in the Learning Disabled Child, Medical Evaluation and Treatment of— Westerman; Gilbert; Madusky *95 Eisele, Camillus, B.A., Mount Holly cr213 Electrodiagnosis in the Evaluation of Progressive Hypotonia in Infancy with Particular Reference to Infant	Physiology—Rothfeld br620 G Gantt, Margaret H., M.D.
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S., Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation —Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946 Eighth-Nerve Disorders in the Learning Disabled Child, Medical Evaluation and Treatment of— Westerman; Gilbert; Madusky *95 Eisele, Camillus, B.A., Mount Holly cr213 Electrodiagnosis in the Evaluation of Progressive Hypotonia in Infancy with Particular Reference to Infant Botulism—Schrager; Diamond; Rosnowski;	Gantt, Margaret H., M.D
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S, Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation —Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946 Eighth-Nerve Disorders in the Learning Disabled Child, Medical Evaluation and Treatment of— Westerman; Gilbert; Madusky *95 Eisele, Camillus, B.A., Mount Holly cr213 Electrodiagnosis in the Evaluation of Progressive Hypotonia in Infancy with Particular Reference to Infant Botulism—Schrager; Diamond; Rosnowski; Waran cr125	Gantt, Margaret H., M.D
Dual Fee System bt602 Dubovy, Carl, M.D. le76 Dunn, John S., Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation —Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946 Eighth-Nerve Disorders in the Learning Disabled Child, Medical Evaluation and Treatment of— Westerman; Gilbert; Madusky *95 Eisele, Camillus, B.A., Mount Holly cr213 Electrodiagnosis in the Evaluation of Progressive Hypotonia in Infancy with Particular Reference to Infant Botulism—Schrager; Diamond; Rosnowski; Waran cr125 Elevated Serum Acid Phosphatase in Chronic Myelomonocytic	Physiology—Rothfeld
Dual Fee System bt602 Dubovy, Carl, M.D. le776 Dunn, John S, Sr., M.D., 1700 Dwyer, William A., Jr., M.D., Paterson cr843 E Early Developments in Sports Medicine—Novich *309 Echocardiographic Diagnosis, Flail Mitral Leaflet: An—Agarwal; Haft cr404 Echocardiography: Techniques and Interpretation —Rowen br701 Ectopic Ossification, Pseudodigitation in—Gould; Shah; Patel; Curtis cr131 Edwards, W. Cary le946 Eighth-Nerve Disorders in the Learning Disabled Child, Medical Evaluation and Treatment of— Westerman; Gilbert; Madusky *95 Eisele, Camillus, B.A., Mount Holly cr213 Electrodiagnosis in the Evaluation of Progressive Hypotonia in Infancy with Particular Reference to Infant Botulism—Schrager; Diamond; Rosnowski; Waran cr125	Gantt, Margaret H., M.D

Goracci, Armando F., M.D	Impaired Physicians, Help For 37, 71, 117, 199, 258, 313, 348,
Gosling, Richard W., M.D	493, 511, 538, 580, 672, 682,
Gottlieb, Marvin I., M.D. le859	820, 867, 943, 953, 981
Gould, Lawrence, M.D., Newark cr131, le432	—Physicians Program—Canavan
Greco, Ralph S., M.D., Piscataway*19, cr221	—Physicians Program, Executive Coordinator for
Gregory, Margaret, M.D., Trenton*302	Infant Botulism—Schrager; Diamond; Rosnowski;
Greenfield, Daniel P., M.D., Piscataway	Warancr125 —Botulism in Central New Jersey—Amaram; Patel;
Groffman, Sidney, M.D. le860	Papageorgiou; Kesarwalacr121
Groffman, Stuney, M.D.	Infertility, A Practical Guide for the Physician—
Н	Kemmann br257
	Information for the Use of Blood and Blood Components 51
Haft, Jacob I., M.D., Newark ec315, cr404	Institution Patient in a General Hospital Setting; A Special
Hahn, William H., M.D. †700	Population, The State—Stevens*196
Han, Ki, M.D., Newark*741	Insulin Infusion via Portable Pumps in Ambulatory
Hansen, Gerard F., M.D., Hackensack*302	Diabetics, Continuous Subcutaneous—Robins; Bucholtz;
Hanson, Alfred S., M.D	Pelle, D'Agostino*490
Head and Neck Examination and Audiometric Screening in	-Preparations, Newly Released
Institutionalized New Jersey Mental Patients—	Internal Medicine: A Cognitive Specialty—Malta
LaBagnara; Winarsky; Han*741	Intestinal Tubes, Intussusception Due To—Hsu; Diener cr38 Intraaortic Balloon Pumping: An Overview of Its Current
Health Care Planning County Level bt145	Clinical Applications—Pores; Jacobs*485
-Education: Who Pays?, Patient ed720	Intrapulmonary Neurilemoma: A Rare Neurogenic
-Knowledge Questionnaire Survey for Senior Citizens, A-	Tumor—Veliath; Venkatesh; Leone cr1011
Stuart; Kallman; Goldstein*997	Intravenous Anesthetics, Administration of bt604
Hemodialysis Annex	Intussusception Due to Intestinal Tubes—Hsu, Diener cr38
Hemorrhage, Moyamoya Disease: A Cause of Intracerebral	Iron-Dextran Therapy, Dissociation between Stainable Marrow
and Subarachnoid—Cholankeril; Cenizal; Huda;	and Liver Iron following—Ali; Fayemi; Laraia;
Sananman; Schanzer*559	Kasper cr319
Hensle, Otto S., M.D	
Hereditary Disorders Program	
Herniorrhaphy in a Male, Staphylococcal Toxic Shock	J
Syndrome Following—Fisher; Britman; Null cr925	Jacobs, George, M.D., Bronx, NY*553
Hirsch, Linda B., President, MSNJ Auxiliary	—,Glenn P., M.D., Newark*485
-,Paul, J., M.D ed183, pi861	Jacobson, Avrohm, M.D
-,Stuart, A., M.D le249, pi861	Jehl, Joseph J., M.D. le947
Historical Perspective of Surgery for Morbid Obesity—	JEMPAC bt420, bt689
Brolin; Kasnetz; Greenfield*383	—Reportorial
-Resources	Jewel, Kenneth L., M.D., Montclair*731
	Laffa Sidnay H M D #164
HMO Experience in New Jersey—Minzter	Joffe, Sidney H., M.D
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D
Hochheimer, Arthur A., M.D	Johnson Elected to AOMA, Dorothea Ruth Drews
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D
Hochheimer, Arthur A., M.D. †531 Hollenbeck, Harold C., Washington, DC 847 Horn, Michael D., M.D., Willingboro *653 Horner, Neil B., Piscataway sa505	Johnson Elected to AOMA, Dorothea Ruth Drews
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D. 1531 Johnson Elected to AOMA, Dorothea Ruth Drews pi861 Jones, James R., M.D., Piscataway *735 Jorn, Carl H., M.D. 1351
Hochheimer, Arthur A., M.D. †531 Hollenbeck, Harold C., Washington, DC 847 Horn, Michael D., M.D., Willingboro *653 Horner, Neil B., Piscataway sa505 Hospice Services, Medicare to Cover—Rinaldo 1015	Johnsen, Sigurd E., M.D. †531 Johnson Elected to AOMA, Dorothea Ruth Drews pi861 Jones, James R., M.D., Piscataway *735 Jorn, Carl H., M.D. †351 Juarique, Verenando, M.D., Camden cr587
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D. 1531 Johnson Elected to AOMA, Dorothea Ruth Drews pi861 Jones, James R., M.D., Piscataway *735 Jorn, Carl H., M.D. 1351
Hochheimer, Arthur A., M.D. †531 Hollenbeck, Harold C., Washington, DC 847 Horn, Michael D., M.D., Willingboro *653 Horner, Neil B., Piscataway \$8505 Hospice Services, Medicare to Cover—Rinaldo 1015 Hospital Blood Bank Inventory Control, Use of a Type and Screen Program in—Muschenheim *823 —Governing Board Periodical \$1689 —Governing Boards 977	Johnsen, Sigurd E., M.D. †531 Johnson Elected to AOMA, Dorothea Ruth Drews pi861 Jones, James R., M.D., Piscataway *735 Jorn, Carl H., M.D. †351 Juarique, Verenando, M.D., Camden cr587
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D. †531 Johnson Elected to AOMA, Dorothea Ruth Drews pi861 Jones, James R., M.D., Piscataway *735 Jorn, Carl H., M.D. †351 Juarique, Verenando, M.D., Camden cr587 K Kaderabek, Erwin J., M.D. †165 Kalkay, Nuri M., M.D., Holmdel cr680 Kalkay, Nuri M., M.D., Holmdel cr680 Kallman, Harold, M.D., Piscataway *997 Karel, Jack R., M.D., Verona pp599 Kashani, Massoud, M.D., Englewood cn591 Kasnetz, Karen, R.D., Piscataway *383 Kasper, Victoria, R.P., Teaneck cr319 Kaufmann, Walter E., M.D., Newark *991 Kearney, John V., M.D. †165 Kelemen, Edward, M.D., Newark *916 Kelemen, Edward, M.D., New Brunswick cr121 Ketoacidosis with Massive Lipid Elevations, Spurious Hyponatremia in Diabetic—Goldman; Kashani cn591 Khanna, Rajiv, M.D., Paterson cr843 Kim, Hugh C., M.D., Piscataway *915 Kimler, Stephen, M.D., Montclair *731 Kissinger, Donald J., M.D., Teaneck *747 Kler, Joseph H., M.D., Teaneck *747 Kler, Joseph H., M.D., Teaneck *747 Kler, Joseph H., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D.	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D. †531 Johnson Elected to AOMA, Dorothea Ruth Drews pi861 Jones, James R., M.D., Piscataway *735 Jorn, Carl H., M.D. †351 Juarique, Verenando, M.D., Camden cr587 K
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D. †531 Johnson Elected to AOMA, Dorothea Ruth Drews pi861 Jones, James R., M.D., Piscataway *735 Jorn, Carl H., M.D. †351 Juarique, Verenando, M.D., Camden cr587 K Kaderabek, Erwin J., M.D. †165 Kalkay, Nuri M., M.D., Holmdel cr680 Kallman, Harold, M.D., Piscataway *997 Karel, Jack R., M.D., Verona op599 Kashani, Massoud, M.D., Englewood cn591 Kasnetz, Karen, R.D., Piscataway *383 Kasper, Victoria, R.P., Teaneck cr319 Kaufmann, Walter E., M.D., Newark *991 Kearney, John V., M.D. †165 Kelemen, Edward, M.D. to 165 Kelemen, Edward, M.D. holmsel cr121 Ketoacidosis with Massive Lipid Elevations, Spurious Hyponatremia in Diabetic—Goldman; Kashani cn591 Khachadurian, A.K., M.D., Piscataway ra109 Khanna, Rajiv, M.D., Paterson cr843 Kim, Hugh C., M.D., Piscataway ra109 Khanna, Rajiv, M.D., Piscataway ra109 Khanna, Rajiv, M.D., Piscataway *915 Kimler, Stephen, M.D., Montclair *731 Kissinger, Donald J., M.D., Teaneck *747 Kler, Joseph H., M.D. 773, 855, 943, 1025 Koenig, Bertram M., M.D. 773, 855, 943, 1025 Koenig, Bertram M., M.D. 1619 Koerber, George, M.D. 1256 Kovacs, Alexander D., M.D., Scotch Plains op688 Koziol, Joseph 610 Krasna, Irwin J., M.D., Piscataway *909 Krasney, Robert L., M.D. 1436 Krieger, Abbott J., M.D., East Orange *291, le529, le615, *812 Krosnick, Arthur, M.D., Honored by The Academy of Medicine ed183
Hochheimer, Arthur A., M.D	Johnsen, Sigurd E., M.D.

LaBagnara, James, Jr., M.D., Newark *741
LaFranco, Vito F., M.D
Lang, Joseph, M.D
Laraia, Salvatore, Teaneck cr319
Lasky, Jerome, O.D. le860
Law for the Medical Practitioner—Kuvin
Learning-Disabled Child—Gottlieb; Westerman;
McMahon le859
—Disabled Child, Medical Evaluation and Treatment of
Eighth-Nerve Disorders in the—Westerman;
Gilbert; Madusky*95
Lee, Robert E., M.D
Lenz, Paul R., M.D., New Brunswick*496
Leonard, Eileen T., New Brunswick*723
Leone, Armand F., M.D., Wayne cr1011
Lester, David, Ph.D., Pomona*819
Letters to <i>The Journal</i>
Leukemia, Elevated Serum Acid Phosphatase in
Chronic Myelomonocytic—Stefaniwsky; Kim;
Cho; Saidi*915
LeViseur-Mendonca, Mary Ann, R.N., Newark*991
Levy, Jack D., M.D
Lewandowski, Edmund, M.D
Leyson, Jose F. J., M.D., East Orange *647, 1018
Licensing of Physicians bt1020
Lieber, Caroline, M.S., Hackensack*389
Life Stress—Lehrer br1034
Lifeline Program
Lifelong Sexual Vigor, How To Avoid and Overcome
Impotence—Cross br258
Liguori, James, M.D., Newark*25
Lima, Giovanni, M.Dle947
Lippman, Heinz I., M.D., Teaneck*29, le432
Localization of Gastrointestinal Bleeding with Technetium
99m Sulfur Colloid Scintigraphy—Parrella;
Warshauer; Rothman cr675
Lueddecke, Roland E., M.D
Lung Cancer Survival among Patients with—Safirstein:
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama*573
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama*573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama*573
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama*573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M MacMillan, C. Wright, M.D. *1955 —,Robert M., M.D. Browns Mills \$8395, *1001 Madusky, Linda G., Shrewsbury *95
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M MacMillan, C. Wright, M.D. *1955 —,Robert M., M.D. Browns Mills *sa395, *1001 Madusky, Linda G., Shrewsbury *95 Magnesium Requirements in Human Nutrition *849 Malfitan, Richard C., M.D., Newark ra666 Malta, Frank J., M.D. *1926, *1926, *1933, bt338 Malta, Frank J., M.D. *1926, *1
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M MacMillan, C. Wright, M.D. *1955 —,Robert M., M.D. Browns Mills *sa395, *1001 Madusky, Linda G., Shrewsbury *95 Magnesium Requirements in Human Nutrition 849 Malfitan, Richard C., M.D., Newark ra666 Malta, Frank J., M.D. le247, ed281, op333, bt338 Management of Recurrent Ventricular Tachycardia: A
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama **573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz **496 M MacMillan, C. Wright, M.D. **1955 —Robert M., M.D. Browns Mills **sa395, *1001 Madusky, Linda G., Shrewsbury **95 Magnesium Requirements in Human Nutrition **849 Malfitan, Richard C., M.D., Newark **1666 Malta, Frank J., M.D. **16247, ed281, op333, bt338 Management of Recurrent Ventricular Tachycardia: A Reappraisal—Saksena; Parsonnet; LeViseur- Mendonca; Kaufmann; Rathyen; Ferguson **991
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M MacMillan, C. Wright, M.D. *1955 —,Robert M., M.D. Browns Mills *395, *1001 Madusky, Linda G., Shrewsbury *95 Magnesium Requirements in Human Nutrition *849 Malfitan, Richard C., M.D., Newark *1666 Malta, Frank J., M.D. *16247, ed281, op333, bt338 Management of Recurrent Ventricular Tachycardia: A Reappraisal—Saksena; Parsonnet; LeViseur- Mendonca; Kaufmann; Rathyen; Ferguson *991 —of Complications in Gynecologic Oncology—Abrams br870
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M MacMillan, C. Wright, M.D. *1955 —,Robert M., M.D. Browns Mills *sa395, *1001 Madusky, Linda G., Shrewsbury *95 Magnesium Requirements in Human Nutrition *849 Malfitan, Richard C., M.D., Newark *1666 Malta, Frank J., M.D. *16247, ed281, op333, bt338 Management of Recurrent Ventricular Tachycardia: A Reappraisal—Saksena; Parsonnet; LeViseur- Mendonca; Kaufmann; Rathyen; Ferguson *991 —of Complications in Gynecologic Oncology—Abrams *19870 Managing Editor Retires *19870 Managing Editor Retires *19870 Manual for Vascular Medicine and Surgery—Parsonnet *19870 Manual for Vascular Medicine and Surgery—Parsonnet *19870 Manual for Vascular Medicine and Surgery—Parsonnet *19870
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M MacMillan, C. Wright, M.D. *1955 —,Robert M., M.D. Browns Mills *sa395, *1001 Madusky, Linda G., Shrewsbury *95 Magnesium Requirements in Human Nutrition *849 Malfitan, Richard C., M.D., Newark *1666 Malta, Frank J., M.D. *16247, ed281, op333, bt338 Management of Recurrent Ventricular Tachycardia: A Reappraisal—Saksena; Parsonnet; LeViseur- Mendonca; Kaufmann; Rathyen; Ferguson *991 —of Complications in Gynecologic Oncology—Abrams *19870 Managing Editor Retires *19870 Managing Editor Retires *19870 Manual for Vascular Medicine and Surgery—Parsonnet *19870 Manual for Vascular Medicine and Surgery—Parsonnet *19870 Manual for Vascular Medicine and Surgery—Parsonnet *19870
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M MacMillan, C. Wright, M.D. *1955 —,Robert M., M.D. Browns Mills *sa395, *1001 Madusky, Linda G., Shrewsbury *95 Magnesium Requirements in Human Nutrition *849 Malfitan, Richard C., M.D., Newark *1666 Malta, Frank J., M.D. *16247, ed281, op333, bt338 Management of Recurrent Ventricular Tachycardia: A Reappraisal—Saksena; Parsonnet; LeViseur—Mendonca; Kaufmann; Rathyen; Ferguson *991 —of Complications in Gynecologic Oncology—Abrams br870 Managing Editor Retires *1970 —ob/Gyn Emergencies—Pelosi br352 Manual for Vascular Medicine and Surgery—Parsonnet br1034 Marchetti, Albert E., M.D. *165 Maressa, Vincent, J.D., Lawrenceville *1650 details *1800 Massengill, James B., M.D. *1652
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama *573 Lyme Disease in New Jersey: A Cluster of 4 Cases and 13 Sporadic Cases—Slade; Lenz *496 M MacMillan, C. Wright, M.D. *1955 —,Robert M., M.D. Browns Mills *sa395, *1001 Madusky, Linda G., Shrewsbury *95 Magnesium Requirements in Human Nutrition *849 Malfitan, Richard C., M.D., Newark *1666 Malta, Frank J., M.D. *16247, ed281, op333, bt338 Management of Recurrent Ventricular Tachycardia: A Reappraisal—Saksena; Parsonnet; LeViseur—Mendonca; Kaufmann; Rathyen; Ferguson *991 —of Complications in Gynecologic Oncology—Abrams br870 Managing Editor Retires *1970 —ob/Gyn Emergencies—Pelosi br352 Manual for Vascular Medicine and Surgery—Parsonnet br1034 Marchetti, Albert E., M.D. *165 Maressa, Vincent, J.D., Lawrenceville *1650 details *1800 Massengill, James B., M.D. *1652
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama Sporadic Cases—Slade; Lenz M MacMillan, C. Wright, M.D. Robert M., M.D. Browns Mills Sa395, *1001 Madusky, Linda G., Shrewsbury Maffitan, Richard C., M.D., Newark Reappraisal—Saksena; Parsonnet; LeViseur—Mendonca; Kaufmann; Rathyen; Ferguson Managing Editor Retires —Ob/Gyn Emergencies—Pelosi Marchati, Albert E., M.D. Marchiti, Albert E., M.D. Maressa, Vincent, J.D., Lawrenceville disassengill, James B., M.D. Maternal Deaths in New Jersey (1980)—Hansen; Gregory *302 Maternal Deaths in New Jersey (1980)—Hansen; Gregory *302 Maternal Deaths in New Jersey (1980)—Hansen; Gregory *302 MacGarry, Robin, M.D., Newark McGarry, Robin, M.D., Newark McGarry, Robin, M.D., Newark McGarry, Robin, M.D., Newark McGarry, Wh.D., Commissioner of Health *427 McMahon, James, Psy.D. 1860 McNicholas, Kathleen W., M.D., Browns Mills *835 Medicaid Directions, Response to—Abrams 1815 —Medicaid Directions, Response to—Abrams 1815 —Second Surgical Opinion Program 1816 Medicaid Assistant?, Who's Afraid of the Big, Bad—
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama Sporadic Cases—Slade; Lenz *496 *496 *M MacMillan, C. Wright, M.D. Robert M., M.D. Browns Mills Sa395, *1001 Madusky, Linda G., Shrewsbury Magnesium Requirements in Human Nutrition Malfitan, Richard C., M.D., Newark Reappraisal—Saksena; Parsonnet; LeViseur—Mendonca; Kaufmann; Rathyen; Ferguson Anaging Editor Retires —Ob/Gyn Emergencies—Pelosi Marchetti, Albert E., M.D. Marchett, Albert E., M.D. Marchett, Albert E., M.D. Marchett, Albert E., M.D. Maternal Deaths in New Jersey (1980)—Hansen; Gregory *302 —Deaths, Post-mortem Study Mayer, Shirley, M.D., Commissioner of Health bit20 McGarry, Robin, M.D., Newark Cr509 McGuire, William, Appointment 427 McMahon, James, Psy.D. Medicaid Directions, Response to—Abrams le157 —Second Surgical Opinion Program bit39 Medical Assistant?, Who's Afraid of the Big, Bad— Kovacs — 09688 —Assistants le947, le1026 Assistants le947, le1026 *496 **496 **Marchetti, Albert E., M.D. #573 #496 **Marchetti, Albert E., M.D. #574 #575 #575 **Aunual for Vascular Medicine and Surgery—Parsonnet #576 #676 #677 #677 #677 #677 #677 #677 #677 #678 #677 #678 #677 #678
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama
Lung Cancer, Survival among Patients with—Safirstein; Goldshlack; Sarama Sporadic Cases—Slade; Lenz *496 *496 *M MacMillan, C. Wright, M.D. Robert M., M.D. Browns Mills Sa395, *1001 Madusky, Linda G., Shrewsbury Magnesium Requirements in Human Nutrition Malfitan, Richard C., M.D., Newark Reappraisal—Saksena; Parsonnet; LeViseur—Mendonca; Kaufmann; Rathyen; Ferguson Anaging Editor Retires —Ob/Gyn Emergencies—Pelosi Marchetti, Albert E., M.D. Marchett, Albert E., M.D. Marchett, Albert E., M.D. Marchett, Albert E., M.D. Maternal Deaths in New Jersey (1980)—Hansen; Gregory *302 —Deaths, Post-mortem Study Mayer, Shirley, M.D., Commissioner of Health bit20 McGarry, Robin, M.D., Newark Cr509 McGuire, William, Appointment 427 McMahon, James, Psy.D. Medicaid Directions, Response to—Abrams le157 —Second Surgical Opinion Program bit39 Medical Assistant?, Who's Afraid of the Big, Bad— Kovacs — 09688 —Assistants le947, le1026 Assistants le947, le1026 *496 **496 **Marchetti, Albert E., M.D. #573 #496 **Marchetti, Albert E., M.D. #574 #575 #575 **Aunual for Vascular Medicine and Surgery—Parsonnet #576 #676 #677 #677 #677 #677 #677 #677 #677 #678 #677 #678 #677 #678

-Evaluation and Treatment of Eighth-Nerve Disorders	
in the Learning-Disabled Child-Westerman;	
Gilbert; Madusky	*95
—History Museum	1017
—History Society of New Jersey	236
Licensing and Discipline, Position Statement	230 ed14
Management of Occlusive Arterial Disease Linnman	*20
—Management of Occlusive Arterial Disease—Lippman —Philately	2 1025
—Pfiliately	5, 1025
—Physiology—Riegel —Services, Council on	b+144
—Services, Council on ———————————————————————————————————	. 01140
—Services, Federal Compensation for	//2
-Society of New Jersey and You, The	ed890
-Students	. bt232
-Surgical Plan of New Jersey bt232, bt518	, bt601
Medicare and Medicaid—Hollenbeck	
Medicine in the 1980s—Slobodien	469
Members, New	05, 939
Membership Directory, 1983	bt934
-Recruitment	
Memorial Resolutions	
Mental Patients, Head and Neck Examination and Audio-	. 01001
metric Screening in Institutionalized New Jersey—	
LaBagnara; Winarsky; Han	*/41
Mentally III, Physician Advocates for-Epstein	
Messick, R. Richard, M.D., Willingboro	*653
Microsurgical Treatment of Carpal Tunnel Syndrome—	
Microsurgical Treatment of Carpal Tunnel Syndrome— Hubschmann; Weisbrot; Krieger	*291
—Treatment of Carpal Tunnel Syndrome—	
-Treatment of Carpal Tunnel Syndrome- Massengill; Hubschmann; Krieger le529	le615
Midwife Practices	760
Midwife Practices Miele, Francis A., M.D.	107 ±165
Miele, Francis A., M.D.	1103
Migotski, Markian, M.D.	7236
Miller vs. SBME	336
-,Walter H., D.O. Minority Students	. le432
Minority Students	339
Minzter, Albert, M.D.	le64
Missionary Position, The Case Against the-Smith	op225
Mitral Valve Prolapse in Systemic Amyloidosis: An	
Unusual Association—Austin; Cohen; Batuman	cr577
Moore, Roger A., M.D., Browns Mills	
Moore, Roger A., W.D., Drowns Wins	655
Morgenstern, Dan A., M.D., Princeton	. cr583
Moss, Charles M., M.D., Newark	*553
Moss, Charles M., M.D., Newark Mousavi Honored	*553
Moss, Charles M., M.D., Newark	*553 773
Moss, Charles M., M.D., Newark	*553 773
Moss, Charles M., M.D., Newark	*553 773
Moss, Charles M., M.D., Newark	*553 773
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42	*553 773 *559
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 607, 691, 772, 855, 93	*553 773 *559 22, 461, 8, 1021
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 607, 691, 772, 855, 93	*553 773 *559 22, 461, 8, 1021
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary —50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence	*553 773 *559 22, 461, 8, 1021 461
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association	*553 773 *559 22, 461, 8, 1021 461 . bt420 . bt420
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings	*553 773 *559 22, 461, 8, 1021 461 . bt420 . bt420
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 773 *559 22, 461, 8, 1021 461 . bt420 . bt420 . bt337 . bt518
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville	*553 773 *559 22, 461, 8, 1021 461 . bt420 . bt420 . bt337 . bt518 *823
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville	*553 773 *559 22, 461, 8, 1021 461 . bt420 . bt430 . bt518 *823
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 773 *559 22, 461, 8, 1021 461 bt420 bt420 bt337 bt518 *823 pi249 cr213
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville	*553 773 *559 22, 461, 8, 1021 461 bt420 bt420 bt337 bt518 *823 pi249 cr213
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 773 *559 22, 461, 8, 1021 461 bt420 bt420 bt337 bt518 *823 pi249 cr213
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark	*553 773 *559 22, 461, 8, 1021 461 bt420 bt420 bt337 bt518 *823 pi249 cr213
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 773 *559 22, 461, 8, 1021 461 bt420 bt420 bt337 bt518 *823 pi249 cr213
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark	*553 773 *559 *559 461, 8, 1021 461 . bt420 . bt337 . bt518 *823 . pi249 . cr213
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark N Naclerio, Amedeo C., M.D.	*553 773 *559 *559 461, 8, 1021 461 . bt420 . bt337 . bt518 *823 . pi249 . cr213 . ra666
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 773 *559 22, 461, 8, 1021 461 . bt420 . bt337 . bt518 *823 . pi249 . cr213 . ra666
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary. 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark Nafash, Shafeek, M.D. Nafen, Ahmad Z., M.D., Newark	*553 773 *559 22, 461, 8, 1021 461 . bt420 . bt337 . bt518 *823 . pi249 . cr213 . ra666
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark Naclerio, Amedeo C., M.D. Nafash, Shafeek, M.D. Najem, Ahmad Z., M.D., Newark Neck Examination and Audiometric Screening In	*553 773 *559 22, 461, 8, 1021 461 . bt420 . bt337 . bt518 *823 . pi249 . cr213 . ra666
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 773 *559 12, 461, 8, 1021 461 . bt420 . bt337 . bt518 *823 . pi249 . cr213 . ra666 †1031 †955
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary. 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark Nafash, Shafeek, M.D. Nafash, Shafeek, M.D. Najem, Ahmad Z., M.D., Newark Neck Examination and Audiometric Screening In Institutionalized New Jersey Mental Patients— LaBagnara; Winarsky; Han	*553 *559 *559 *559 *650 *6420 *6420 *823 *823 ra2666 *741
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark N Naclerio, Amedeo C., M.D. Nafash, Shafeek, M.D. Najem, Ahmad Z., M.D., Newark Neck Examination and Audiometric Screening In Institutionalized New Jersey Mental Patients— LaBagnara; Winarsky; Han Nelson, Laura Brown, Ed.D., Newark	*553 *559 *559 *559 *650 *6420 *6420 *823 *823 ra2666 *741
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 *559 *559 *559 *650 *6420 *6420 *823 *823 ra2666 *741
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark N Naclerio, Amedeo C., M.D. Nafash, Shafeek, M.D. Najem, Ahmad Z., M.D., Newark Neck Examination and Audiometric Screening In Institutionalized New Jersey Mental Patients— LaBagnara; Winarsky; Han Nelson, Laura Brown, Ed.D., Newark	*553 *559 *559 *559 *650 *6420 *6420 *823 *823 ra2666 *741
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553*559 22, 461, 8, 1021 461 bt4202 bt4202 bt337*8233 pi249 cr213 ra666 †1031 †955 ra666
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 *773 *559 2.2, 461, 8, 1021 *5420 *5420 *5420 *5420 *5420 *5420 *5420 *5420 *5420 *6666 *741 *829 *741 *829
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 *773 *559 2.2, 461, 8, 1021 *5420 *5420 *5420 *5420 *5420 *5420 *5420 *5420 *5420 *6666 *741 *829 *741 *829
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 *559 *559 22, 461, 8, 1021 *559 22, 461, 8, 1021 *4559 *41031 *823 *823 *666 *741 *829 *741 *829
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark N Naclerio, Amedeo C., M.D. Nafash, Shafeek, M.D. Najem, Ahmad Z., M.D., Newark Neck Examination and Audiometric Screening In Institutionalized New Jersey Mental Patients— LaBagnara; Winarsky; Han Nelson, Laura Brown, Ed.D., Newark Neurilemoma: A Rare Neurogenic Tumor, Intrapulmonary—Veliath; Venkatesh; Leone Neurogenic Tumor, Intrapulmonary Neurilemoma: A Rare- Veliath; Venkatesh; Leone Nevin, Richard I.	*553 *559 *559 *559 *559 *610 *559 *610
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 *559 *559 *559 *559 *610 *559 *610
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 *559 *559 22, 461, 8, 1021 *61 *61 *61 *61 *61 *62 *63 *666 *741 *829 *741 *829 *666
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark N Naclerio, Amedeo C., M.D. Nafash, Shafeek, M.D. Najem, Ahmad Z., M.D., Newark Neck Examination and Audiometric Screening In Institutionalized New Jersey Mental Patients— LaBagnara; Winarsky; Han Nelson, Laura Brown, Ed.D., Newark Neurilemoma: A Rare Neurogenic Tumor, Intrapulmonary—Veliath; Venkatesh; Leone Neurogenic Tumor, Intrapulmonary Neurilemoma: A Rare- Veliath; Venkatesh; Leone Nevin, Richard I. New Jersey Bugs: Reactions in People—Berger; Papa —Jersey, Chromobacterium Violaceum Septicemia in— Myers; Ragasa; Eisele	*553 *559 *559 22, 461, 8, 1021 *61 *61 *61 *61 *61 *62 *63 *666 *741 *829 *741 *829 *666
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 *773 *559 2.2, 461, 8, 1021 *559 2.2, 461, 8, 1021 *614 *461 *461 *461 *1031
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 *773 *559 2.2, 461, 8, 1021 *559 2.2, 461, 8, 1021 *614 *461 *461 *461 *1031
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary 50, 151, 234, 339, 42 607, 691, 772, 855, 93 —Auxiliary, Linda B. Hirsch (President) —House of Delegates, Delegate Absence —Student Association —Student Association Representation at Meetings MSP Claim Form Muschenheim, Frederick, M.D., Denville Musgnug, Richard H., M.D. Myers, Jeffrey, M.D., Mount Holly Myneni, Narendra P., M.D., Newark N Naclerio, Amedeo C., M.D. Nafash, Shafeek, M.D. Najem, Ahmad Z., M.D., Newark Neck Examination and Audiometric Screening In Institutionalized New Jersey Mental Patients— LaBagnara; Winarsky; Han Nelson, Laura Brown, Ed.D., Newark Neurilemoma: A Rare Neurogenic Tumor, Intrapulmonary—Veliath; Venkatesh; Leone Neurogenic Tumor, Intrapulmonary Neurilemoma: A Rare- Veliath; Venkatesh; Leone Nevin, Richard I. New Jersey Bugs: Reactions in People—Berger; Papa —Jersey, Chromobacterium Violaceum Septicemia in— Myers; Ragasa; Eisele	*553 *773 *559 2.2, 461, 8, 1021 *559 2.2, 461, 8, 1021 *614 *461 *461 *461 *1031
Moss, Charles M., M.D., Newark Mousavi Honored Moyamoya Disease: A Cause of Intracerebral and Subarachnoid Hemorrhage—Cholankeril; Cenizal; Huda; Sananman; Schanzer MSNJ Auxiliary	*553 *773 *559 2.2, 461, 8, 1021 *559 2.2, 461, 8, 1021 *614 *461 *461 *461 *1031

Jersey or Massachusetts?—Saffron	Pericarditis: The Third Autopsied Case in the United States
Jersey PAA Law, What the Physician Should Know	with a Study of its Histogenesis, Cholesterol—
About	Gáspárcr32
—Jersey Physician Assistant Graduates Are Successful Practitioners—Nelson*829	Peritonitis: A Case Diagnosed 16 Years following Surgery, Starch Granulomatous—McGarry; Russoniello;
-Jersey State Medical Underwriters, Inc bt419, 604	Davis cr50
-Jersey's Fifth Pathway: The Returns for the Effort-	Perron, Reed C., M.D. le94
French; Semen*903	Personal Items
-Members	Peters, Edgar A.P., M.D
Niguidula, Faustino N., M.D., Browns Mills*835	Pharmaceutic Assistance to the Aged Law, The
982 Year Book of Medicine—Lewin	Amorosa; Khachadurian ra10
982-1983 Committees and Councils	Pheochromocytomas, Radiology of-Amorosa; Amorosa;
-Special Committees and Special/Liaison	Nosher; Donnelly sal1
Representatives	Physical Modalities
Nissenblatt, Michael J., M.D., Piscataway	Physician Administered Injections
Resonance—Horner	—Assistant Graduates Are Successful Practitioners,
Nominating Committee, Report of the	New Jersey—Nelson*82
Noninvasive Techniques in Cardiac Diagnosis—	-Study, Foreign 42
MacMillan; Zeiger sa395	—Supply in New Jersey bt68
Nosher, J.L., M.D., Piscatawaysa114 Novich, Max M., M.D., Perth Amboy*309	Physicians and Agent Orange
Nuclear Arms Control	525, 611, 692, 773, 855, 939, 102
-Arms Freeze ed549, le945	Physicians' Handbook—Poppick br62
-Magnetic Resonance (NMR): A New Imaging Modality-	-Responsibilities Under the New Jersey Controlled
Horner sa505	Dangerous Substances Act, The—Bowser
Null, Robert H., M.D., Plainfieldcr925	Piebaldism, Brown-Séquard Syndrome and—
Nursing Program	Stefaniwsky; Nissenblatt
-Update	Plavin, Nathan J., M.D
-Using the Broviac Catheter, Prolonged Total Parenteral-	Pneumothorax: Case Report and Literature Review,
Krasna; Shapira*909	Spontaneous Bloody-Morgenstern; Davidson;
0	Chandler
0	Powell, Ryland B., M.S.W., East Orange*64 Pores, Ira H., M.D., Newark*48
Obesity, A Genetic Disease	Position Statement: Medical Licensing and Discipline ed1
-,Historical Perspective of Surgery for Morbid-	Post-mortem Studies bt60
Brolin; Kasnetz; Greenfield*383 Obituaries 71, 164, 255, 351, 436, 531, 618, 699, 781, 955, 1031	Postsplenectomy Sepsis in an Adult Following Anti-
Occlusive Arterial Disease, Medical Management of—	pneumococcal Immunization—Trooskin; Greco cr22
Lippman*29	Practical Considerations in the Treatment of Carpal Tunnel Syndrome—Davne*29
O'Neal, John R., M.D., Willingboro*653	—Endocrine Diagnosis, Third Edition—Singer br70
Oren, Hyman, M.D	Practice of Cancer Surgery, The—Fieber br95
Organized Medicine—Miller	Pregnancy, Adolescent—Robinson le94
-Medicine: The Correct Solution to the Incorrect Problem, The Structure of—Maressa ed13	-and Parenthood, On Teenage-Shrier ed97
Orthopedic Symposium Published	Pregnancies: Experience with Four Sets, Triplet—O'Neal; Horn; Messick*65
Ownership Statement	Prenatal Diagnostic Services in a Community Hospital—
Oxygen Saturation and Cardiac Rhythm During Transoral	Young; Lieber; Desposito*38
Fiberoptic Bronchoscopy, Arterial—Schiffman;	Prescription Drug Abuse
Westlake; Fourre; Leonard*723	Present Management of Diabetic Retinopathy, The—
Р	Braunstein; Cinottisa20 Prevention and Modern Treatment of Tuberculosis
P	Previti, Francis W., M.D., Atlantic City
Pain Center, UMDNJ-New Jersey Medical School 422	Primich, Frank J., M.D., West New York op41
Pancreatic Pseudocysts: An Additional Case Report Using	PRN 1981-66 le64, le6
Preoperative Splenic Artery Embolization, Global Review of—Cheung; Najem; Myneni; Malfitan ra666	Professional Liability Commentary
Papa, Christopher M., M.D., New Brunswick ra657	449, 547, 633, 715, 796, 885, 96 Pronouncement of Death
Papageorgiou, Photini S., M.D., New Brunswick cr121	Prostaglandin E ₁ in Peripheral Vascular Disease, Clinical
Parman, Stanley C., M.D., Summitcr215	Observations with Intravenous—Feldman; Alpert; Dick;
Parrella, John A., M.D., Red Bankcr675	Brief; Goldenkrantz; Brener; Parsonnet*98
Parsonnet, Victor, M.D., Newark	Pseudocysts: An Additional Case Report Using Preoperative
-,Mahandra, M.D., Newark cr121	Splenic Artery Embolization—Cheung; Najem; Myneni; Malfitanra66
Patient Care	Pseudodigitation in Ectopic Ossification—Gould;
-Patient Health Education; Who Pays? ed720	Shah; Patel; Curtis
Peck, George C., M.D	Psychological Disturbance, Arachnoid Cyst Associated
Pediatric Briefs	with—Colameco; DiTomasso cr20
Pelle, Anita, R.N., Springfield*490	Public Health 42
Penile Tumescence Monitors, Comparative Study of Two	—Relations—Willis
Nocturnal—Leyson; Powell*647	Insulin Infusion Via Portable—Robins; Bucholtz; Pelle;
Percutaneous Fine-Needle Biopsy Using Direct Imaging	D'Agostino*49
Techniques—Jewel; Kimler*731 —Radiofrequency Rhizotomy for Spasticity—Krieger;	
Crowder*812	Q
-Transluminal Coronary Angioplasty at a Community	
Hospital—Liguori; Werres; Rothfeld*25	Q-T Interval, The Syndrome of the Long—Rothfeld ec74

D 0 MD	for—Stuart; Kallman; Goldstein*997
Race, Oscar, M.D	Sex Education, Twelve Rules for Parents Regarding—
Radioallergosorbent Test (RAST), The—Fost *479, le776	Leyson op1018
Radiology of Pheochromocytomas—Amorosa; Amorosa;	Shah, Jyoti M., M.D., Newark cr131
Nosher; Donnelly sal14 —of the Emergency Patient: An Atlas Approach—	Shapira, Shmuel C., M.D., Piscataway*909
Spindell br783	Shaw, Michael, Piscataway*735
Ragasa, Dante A., M.D., Mount Holly cr213	Shayevitz, Abraham, M.D
Ramirez, Ph.D., Piscataway*735	Sherwood, David J le248
Rashti, Manouchehr Y., M.D., Paterson cr838	Shrier, Diane K., M.D ed974
RAST, The Radioallergosorbent Test—Fost*479	Sibert, Nancy S., M.D
Rathyen, William, M.D., Newark*991	Sickle Cell Anemia, Clinical Use of Recombinant DNA
Reading, Eugene H., M.D	Techniques: The Antenatal Diagnosis of—Jones;
Referrals Out of State	Romano; Bernard; Shaw; Ramirez*735
Reichman, Joseph H., M.D. le615	-Cell Trait: A Case of Probable Trait with Catastrophic
Reilly, Christopher, M.D	Neurologic Presentation, Crisis in—Gisser;
Relationship of Hypercholesterolemia to Coronary Heart	Tjiptohardjo
Disease—Bierenbaum sa35	Sirotta, Paul S., M.D., Long Branch
Research Definitions ed91	Slade, John D., M.D., New Brunswick*496
Retrosternal Goiter, Superior Vena Cava Obstruction	Slavin, Paul, M.D
Secondary to-Fieber; Cohn; Bastides; Gillette *100	Smilow, Paul C., M.D.
Review of Medical Microbiology-Fisher br870	Smith, Leon G., M.D., Newark op228, cn929
Rhizotomy for Spasticity, Percutaneous Radiofrequency—	Society for the Relief of Families of Physicians ed891
Krieger; Crowder*812	Sonography in the Diagnosis of Biliary Tract Disease: A
Riegel, Norman, M.D., Book Review Editor ed375	Retrospective Study, Cholescintigraphy and—
Rienzo, Albert A., M.Dle860	Sirotta*187
Rinaldo, Matthew J., Washington, DC 1015	Sooy, Leslie, M.D. +256
Rineberg, Bernard A., M.D pi249	Spasticity, Percutaneous Radiofrequency Rhizotomy for—
Roberts, David C., M.D	Krieger; Crowder*812
Robins, Bernard, M.D., Springfield*490	Special Report on Depression Research—Sugerman br783
Robinson, Estelle R	Specialty Society Representation in House of Delegates bt337
Rogers, George A., M.D. le694	Speech and Speech Disorders in Western Thought
Romano, Valentino, Ph.D., Piscataway*735	before 1600—Saffron br72
Rosen, Zelig, M.D	Spence, Richard K., M.D., Camden cr587
Rosnowski, S.Z., M.D., Summit cr125	Splenic Artery Embolization, Global Review of Intrasplenic
Ross, Ira S., M.D	Pancreatic Pseudocysts—Cheung; Najem;
—Edwin L., M.D	Myneni; Malfitan ra666
Rothman, Donald, M.D., Red Bank cr675, cr680	Spontaneous Bloody Pneumothorax: Case Report and
Rubenstein, Robert N., M.D	Literature Review—Morgenstern; Davidson;
Rubin, Robert, M.D., Bronx, NY*553	Chandler cr583
Ruccia, Arthur J., M.D	Sports, The Child in—Farley*567
Rule 4:21	-Medicine, Early Developments in-Novich*309
Rush, Benjamin F., Jr., M.D., Newark cr681	Spradley, Jeems, M.D
Russo, Thomas M le65	Spurious Hyponatremia in Diabetic Ketoacidosis with Massive
Russoniello, Michael, M.D., Newark cr509	Lipid Elevations—Goldman; Kashani
	—ST Segment Deviation, The Atrial Repolarization Wave—
	Agarwal; Haft ec315 Squamous Cell Carcinoma of the Thyroid—Budd; Fink;
	Rashti; Woo
S	Standard Care—Subacute Endocarditis, Deviation from—
Saffron, Morris H., M.D 603, ed719, mh758	Smith
Safirstein, B.H., M.D., Newark*573	Staphylococcal Toxic Shock Syndrome Following
Saidi, Parvin, M.D., Piscataway*915	Herniorrhaphy in a Male—Fisher; Britman;
Saksena, Sanjeev, M.D., Newark*991	Null cr925
Salaky, William L., M.D	Starch Granulomatous Peritonitis: A Case Diagnosed 16
Same-day Surgery bt146, bt771, bt935	Years following Surgery—McGarry; Russoniello;
Sananman, Michael, M.D., Elizabeth*559	Davis
Sarama, R.F., M.D., Newark*573	Starr, Cynthia D., M.D pi694
Scales, Harold L., M.D., Teaneck op517	State Board of Medical
Schanzer, Bernard, M.D., Elizabeth*559	Examiners bt143, bt147, bt336, bt421, bt769
Schedule of Drugs	-Health Plan bt1019
—II Drug Prescriptions bt689, bt769, bt1019	—Institution Patient in the General Hospital Setting, A
Scher, Allan, J., M.D. pi694	Special Population, The—Stevens*196
Schiffman, Donald I., M.D. le859	Stefaniwsky, Andrew B., M.D., Piscataway cr43, *915
—Philip L., M.D., New Brunswick*723	Stefy, Leonid L., M.D
Schreierson's Atles of Diagnostic Misselfields Fisher h-057	Stevens, D. Barton, M.D., Princeton*196
Schneierson's Atlas of Diagnostic Microbiology—Fisher br957 Schrager, Gloria O., M.D., Summit cr125	Structure of Organized Medicine: The Correct Solution
Scibetta, Louis, President of NJHA	to the Incorrect Problem, The—Maressa
Science Reports, Adolescence and Stress—Hollander br701	Stuart, Marian R., Ph.D., Piscataway*997 Student Financial Aid
Scintigraphy, Localization of Gastrointestinal Bleeding with	Su, Chen Pang Su, M.D., Holmdel
Technetium 99m Sulfur Colloid—Parrella;	Subacute Endocarditis: Deviation from Standard Care—
Warshauer; Rothman cr675	Smith
Scrotal Emphysema—Moore; McNicholas; Niguidula;	Subarachnoid Hemorrhage, Moyamoya Disease: A Cause
Clark*835	of Intracerebral and—Cholankeril; Cenizal; Huda;
Second Surgical Opinion, Medicaid bt519	Sananman; Schanzer*559
Seidman, Joshua I., M.D	Subclavian Vein Cannula for Vascular Access—Previti;
Semen, Joan R., Piscataway*903	Walch; Aarons cn755

Subordinated Loan Certificates	V
Loan Debentures bt144, bt336	V. II. i. E. I. I. M.D.
Loan Deductibility bt518, bt601, bt769, bt1019	Vallario, Frank A., M.D
Loan Requirements bt232	Vascular Access, The Subclavian Vein Cannula for—Previti;
Subpanel Hearing, A Trip to a—Malta op333	Walch; Aarons cn755
Sugerman, A. Arthur, M.D ed801	—Disease, Clinical Observations with Intravenous
Suicide: Trends in New Jersey—Lester*819	Prostaglandin E, in Peripheral—Feldman;
Superior Vena Cava Obstruction Secondary to Retrosternal	Alpert; Dick; Brief; Goldenkranz; Brener;
Goiter-Fieber; Cohn; Bastides; Gillette*100	Parsonnet*985
Surgery for Morbid Obesity, Historical Perspective of	Vasculitis Probably Due to Allopurinol, An Unusual
Survival Among Patients with Lung Cancer—Safirstein;	Case of Hypersensitivity—Falco; Daniels;
Goldshlack; Sarama*573	Conklin
Syndrome of the Long Q-T Interval, The—Rothfield ec749	Veliath, George T., M.D., Wayne cr1011 Vena Cava, Superior Obstruction Secondary to Retrosternal
Szinegh, Bela, M.D	Goiter—Fieber; Cohn; Bastides; Gillette*100
Szuch, Nicholas, M.D	Venin, Bernard, M.D
	Venkatesh, B.K., M.D., Wayne cr1011
_	Visit Your Congressmen ed279
T	Vocational Rehabilitation Service
Tachycardia: A Reappraisal, Management of Recurrent	Vogt, Frank C., M.D
Ventricular—Saksena; Parsonnet; LeViseur-Mendonca;	70gt, 11ank C., 11.D
Kaufmann; Rathyen; Ferguson*991	
Fechnetium 99m Sulfur Colloid Scintigraphy, Localizations	W
of Gastrointestinal Bleeding with—Parrella;	AA
Warshauer; Rothman cr675	Walch, John R., M.D., Atlantic City cn755
Geenage Pregnancy and Parenthood, On—Shrier	Waldron, Edward L., M.D
Fell, M. Edward, M.D	Waran, S.P., M.D., Summit cr125
Tel-Med Program bt769, bt934	Warren, Jeffrey A., M.P.A., Trenton*895
Textbook of Endocrinology-Poppick br957	Warshauer, Lewis J., M.D., Red Bank cr675
Theory of Medical Ethics, A—Nevins br532	Weisbrot, Frederick J., M.D. *291
Therapeutic Drug Information 329, 413, 513, 595, 683, 761	Werbitt, Warren, M.D., Cherry Hillsa919
Thyroid, Squamous Cell Carcinoma of the—Budd; Fink;	Werres, Roland, M.D., Newark*25
Rashti; Woo cr838	West, Katherine, M.D
Ciptohardjo, Tjoa, A., M.D., Camdencr40	Westerman, S. Thomas, M.D., Shrewsbury *95, le860
Fodd, James A., M.D bt145, ed455	Westlake, Robert E., M.D., New Brunswick*723
Comlinson, William B., M.D	What Is Your Opinion? ed185, 228, 333, 417, 517, 599, 688, 763, 1018
Fort Reform bt336	—the Physician Should Know About the New Jersey
Toxic Shock Syndrome following Herniorrhaphy in a	PAA Law
Male, Staphylococccal—Fisher; Britman;	When Is Hypertension Due to Pheochromocytoma?—
Null	Amorosa; Khachadurianra109
Frichinosis—A Common Source Outbreak—Parman cr215	Whither Professionalism?—Todd ed455
Frip to a Subpanel Hearing, A—Malta	Who Overdoses?—Sugerman ed801
riplet Pregnancies: Experience with Four Sets—O'Neal;	Pronounces Death? ed281
Horn; Messick*653	Who's Afraid of the Big, Bad Medical Assistant?—
Frooskin, Stanley Z., M.D., Piscataway cr221	Kovacs op688
Frustees' Minutes	Williams, John E., M.D. le859
601, 603, 689, 769, 934, 1019 f-Tube Removal—Filippone le65	Wilson, Harold M., M.D
7-Tube Removal—Filippone le65	Winarsky, Eric, M.D., Newark*741
Suberculosis, Prevention and Modern Treatment of	Wolgin, Philip L., M.D
Furcot Syndrome: Commentary—Rush cr681	Women Physicians in New Jersey
-Syndrome: Dilemma Resolved, Case of-Rothman; Su;	Woo, T. Hung, M.D., Paterson cr838
Kalkay cr680	Wood, E. LeRoy, M.D
Type and Screen Program in Hospital Blood Bank	Wilgitt, W. Aldii, W.D
Inventory Control, Use of a—Muschenheim*823	
U	Y
U	Y
JMDNJ Foundation bt337	Year of Challenges, The—Goracci
-Notes 149, 234, 338, 422, 520, 606, 690, 772, 854, 938, 1020	You Asked For It—Primich op417
Report of President bt144, bt232, bt420	Young, Tillie, MS, Hackensack*389
Jnusual Case of Hypersensitivity Vasculitis Probably Due	Your Congressman Speaks 847, 1015
to Allopurinol—Falco; Daniels; Conklin cr409	Yuliano, S. Eugene, M.Dle65
Jreteral Obstruction Complicating Urethropexy—Kissinger;	
Beaugard; Affuso cr747	
Jrethropexy, Ureteral Obstruction Complicating—Kissinger;	Z
Beaugard; Affuso	Zeiger, Louis S., M.D., Camden sa395
Jse of a Type and Screen Program in Hospital Blood	Zutz, Harry M., M.D. le946
Bank Inventory Control—Muschenheim*823	Zutz, 11a11y 141., 141.D 16940

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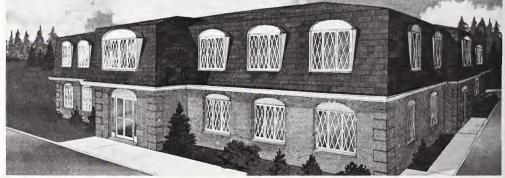
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Transactions 1982 House of Delegates 216th Annual Meeting May 14-17, 1982

Index Pages Tr 3-Tr 4





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TRANSACTIONS

1982 House of Delegates

1981 TRANSACTIONS

At its first session on Saturday, May 15, 1982, the House of Delegates approved the Transactions of the 1981 House of Delegates as published in the July, 1981, Transactions of *The Journal*.

ACTION TO LIMIT DEBATE

At its first session on Saturday, May 15, 1982, the House of Delegates agreed, upon motion, that no one may speak more than once on any given subject except in rebuttal or by express permission of the House, and that floor time in each instance shall be limited to four minutes unless exception is made by the House.

REPORTS AND RESOLUTIONS

Reports and resolutions and the actions, thereon, are included under the Reference Committee to which they were assigned. The House takes action only on the resolved sections of a resolution.



On The Cover: Our cover photographer is Owen A. Shteir, M.D., of Princeton. The Black Cohosh or Bugbane is an unlikely member of the buttercup family. Bugbane grows in shady forests and blooms in late summer. Flowering commences at the bottom of the raceme and proceeds toward the tip—as seen in the cover photograph. Despite its unattractive odor, it is served enthusiastically by a host of pollenating insects.



Accreditation Manual for Hospitals, Proposed Revisions to the	"B"		т	2.2
AMA Membership	"B"			
Ambulatory Care Centers, Discontinuance of Federal Funding of—	ь	***************************************	. 11	10
Resolution #24E	"C"		т.	20
Annual Meeting, Committee on	"F"			
Attendance	_	•••••••••••••••••		
Bills, Statement on Medical	"A"	•••••••••••••••••		
Blood Pressure Testing—Resolution #2	"E"			
Blue Cross/Blue Shield Program, MSNJ Administer—Resolution #16	"C"			
Board of Trustees	"A"			
Boylan, Matthew E., M.D., 1915-1981, Memorial Resolution	А		Tr	9
Bylaws, Proposed Amendments to the "Cons			. Ir	3
Certification for X-ray Technicians, Limited	& B			
CME Requirements, Discontinue (Board of Trustees' Item)	"A"			
Conflict of Interest—Resolution #11	"D"			
Constitution and Bulawa Committee on Braining S	"A"		Tr	15
Constitution and Bylaws, Committee on Revision of "Const				
Credential Procedures, Simplify—Resolution #15	"B"			
Credentials	"B"		Tr	16
Direct Candidacy for Elective Office—Resolution #20 "Const	. & By	ylaws''	Tr	8
DRG Appeal Process (Board of Trustees' Item)	"A"		Tr	10
System of Reimbursement, Reevaluation of the				
(Board of Trustees' Item)	"A"			
Drug Products—FDA Withdrawal of (Board of Trustees' Item)	"C"		Tr	26
Dual Fee System—Resolution #30 (1981)	"C"		Tr	24
Dues for Retired or Semiretired, AMA—Resolution #4	"A"		Tr	14
Election, 1982 House of Delegates			Tr	51
Elective Office, Direct Candidacy for—Resolution #20 "Const	. & By	laws"	Tr	8
Emeritus Membership, Nominations for	"B"			
Equal Rights for Men and Women (Board of Trustees' Item)	"A"			
Excessive Fee Complaints	"A"			
Fee Committees	"A"			
Executive Director	"A"	•••••		
Eye Health Screening Program	"E"			
Family Medicine at UMDNJ—New Jersey Medical School,				•
Funding for a Department of (Board of Trustees' Item)	"D"		Tr .	41
Practice Centers—Resolution #25E	"C"			
Federation of the AMA, Withdrawal from the—Resolution #5	"A"			
Fee Complaints, Arbitration Panel To Hear Physician—Resolution #13	"A"			
Fetus Identification—Resolution #8	"F"			
Finance and Budget, Committee on	"B"			
Financial Aid Programs, Student (Board of Trustees' Item)	"D"			
Five-Digit Procedure Coding—Resolution #18 (1981)	"C"			
Foundation of UMDNJ, Voluntary Contributions to the—Resolution #19.	"F"			
Health Care Coalitions (Board of Trustees' Item)	"A"			
Maintenace Organizations, Discontinuance of Funding for	71		11	1 1
(Board of Trustees' Item)	"A"	***************************************	т. :	10
Systems Agencies, Opposition to (Board of Trustees' Item)	"A"			
Hospital Governing Boards, Program To Publish a Periodical	Λ	***************************************	11	U
for Members of—Resolution #9	"C"		т. 1	7
House Agenda	"A"			
of Delegates, Representation in "Const.		la	II I	3
Impaired Physicians, Executive Coordinator For	& by	iaws	ır	b
(Board of Trustees' Item)	"F"		т	10
Jails, Advisory Committee To Review Health Care in New Jersey	Г		1 r 4	ð
(Board of Trustees' Item)	"E"		т 4	
JEMPAC, Requiring All County Medical Societies To Include in Their	E		ır 4	3
	"В"		т -	
Annual Billing Membership for—Resolution #17	"A"			
Judicial Council	"A"			
Legislation, Council on	U		ir 3	U

Lifeline Program (Board of Trustees' Item)	"F"		 Tr	48
Limit Debate				
Long-Range Planning and Development, Committee on	"A"			
Major Surgery, Rule on (Board of Trustees' Item)	"A"			
Medicaid, Committee on "Const.	-			
Program, Modification of the (Board of Trustees' Item)	"C"	•••••	 Tr	25
Medical Assistants—State of New Jersey, Inc., American				
Association of—Resolution #3	"F"			
Services, Council on	"C"			
Membership	"B"			
Directory	"C"			
Insurance Programs (Board of Trustees' Item)	"B"			
Recruitment Program (Board of Trustees' Item)				
Mental Health, Council on				
Monosodium Glutamate—Resolution #18	"E"			
Negotiations, AMA Department of (Board of Trustees' Item)	"A"			
New Jersey Department of Health, Transfer Division of Mental Health	А		 11	-
and Hospitals to—Resolution #14	"E"		Tr	46
Jersey State Medical Underwriters, Inc.	"C"			
Nuclear Arms Control—Resolution #7	"F"			
Occupational Health, Workmen's Compensation, and Rehabilitation	"C"			
Osteopaths' Use of M.D. Designation (Board of Trustees' Item)	"A"			
Pathologist, Compensation for Services Rendered by a—Resolution #10	"C"			
Practice Statutes, Reporting of Physicians and Other Professionals				
Violating Regulation of (Board of Trustees' Item)	"A"		 Tr	10
Pharmaceutical Assistance to the Aged Program	"C"			
Physician Supply in New Jersey, Request To Investigate—Resolution #1	"D"			
Primary Care Pilot Project for Medicaid Eligibles				
(Board of Trustees' Item)	"C"		 Tr	26
President	"A"		 Tr	9
Professional Standards Review (PSRO) Legislation, Repeal of				
(Board of Trustees' Item)	"A"		 Tr	10
PSROs To Review Medicaid Cases—Resolution #23	"C"		 Tr	28
Public Health, Council on	"E"		 Tr	44
Information—Resolution #22	"D"		 Tr	43
Relations, Council on	"D"		 Tr	39
Reference Committees:				
"A"			 Tr	9
"B"			 Tr	16
"C"			 Tr	23
"D"			 Tr	30
"E"			 Tr	44
"F"				
"Constitution and Bylaws"				
Rehabilitation Treatment, Blue Cross Coverage for—Resolution #3 (1981) .	"C"		 Tr	24
Representation in the House of Delegates "Const.	& By	laws"	 Tr	6
Residents in Approved Postgraduate Training Programs, Temporary				
License for Unlicensed (Board of Trustees' Item)	"D"			
Same-Day Surgery	"C"			
Schedule II Drug Prescription Program—Resolution #6	"A"			
II Narcotic Prescriptions (Board of Trustees' Item)	"A"			
Second Surgical Opinion Program, Medicaid (Board of Trustees' Item)				
Secretary				
Sessions of the House of Delegates				
Special Committees "Const.	& By	iaws''	 ır	/
Specialty Society Representation in the House of Delegates—	e D		т.	_
Resolution #12 "Const.				
Third-Party Fee Complaints Toxic Chemical Wests Stocknike (Roard of Trustees' Item)	"A"			
Transactions Approval of 1981	"E"			
Transactions, Approval of 1981	 "В"			
Treasurer	D	•••••	 11	1 /
Voting Privileges on AMA Matters Restricted to AMA Members— Resolution #21	& Dul	awe"	Tr	Q
Workmen's Compensation, Medical Guidelines for	"C"			
workmen's compensation, inedical duldernies for			 11	4

MEMORIAL RESOLUTIONS

The following resolutions were received by the House with sorrowful concurrence.

Matthew E. Boylan, M.D., 1915-1981

Whereas, Almighty God has summoned from our midst His good servant and our beloved colleague, Matthew E. Boylan, M.D.; and

Whereas, as a physician he always exemplified the attributes of a humanitarian and concerned practitioner; and

Whereas, as a leader of the Medical Society of New Jersey and a distinguished President of this Society, Doctor Boylan rendered splendid service to the physicians and people of New Jersey; now therefore be it

Resolved, that the Medical Society of New Jersey registers its profound grief at the passing of Matthew E. Boylan, M.D.; and be it further

Resolved, that this Resolution be referred to the House of Delegates to be read at the opening session at the Annual Meeting; and be it further

Resolved, that a copy of this Resolution, suitably prepared, be presented to his bereaved family in heartfelt sympathy.

Rudolph C. Gering, M.D., 1930-1982

Whereas, the Almighty has chosen to call from us His loyal servant, Rudolph C. Gering, M.D.; and

Whereas, as an officer of the Medical Society of New Jersey, Doctor Gering served the members of this Society, the people of New Jersey, and the profession generally; and

Whereas, by his understanding and consideration he won the respect and esteem of all who knew him; now therefore be it Resolved, that the Medical Society of New Jersey expresses its profound grief at the death of Rudolph C. Gering, M.D., and extends its heartfelt sympathy to his beloved family; and be it further

Resolved, that this Resolution be spread upon the minutes of this meeting and that a copy, suitably prepared, be presented to the bereaved family of Doctor Gering in token of our grief at his passing.

REFERENCE COMMITTEE ON CONSTITUTION AND BYLAWS

Reports:

COMMITTEE ON REVISION OF CONSTITUTION AND BYLAWS RESOLUTIONS #12, #20, #21 Members:

Bernard A. Rineberg, M.D., Chairman, Middlesex Anthony P. Caggiano, Jr., M.D., Essex Harold L. Colburn, Jr., M.D., Burlington Joseph A. Riggs, M.D., Camden David A. Willard, M.D., Mercer Richard J. Sharrett, M.D., Alternate, Union

Committee on Revision of Constitution and Bylaws

Carl A. Restivo, Sr., M.D., Chairman, Wayne

(Reference Committee on Constitution and Bylaws)

PROPOSED AMENDMENTS TO THE BYLAWS

1. Representation in the House of Delegates

The Committee was requested by the House of Delegates to develop bylaw language that would facilitate the seating of alternate delegates without penalizing the regular delegate. The Committee also was requested to develop language for the seating of medical students in the House of Delegates, as well as representatives from specialty societies.

The wording of the proposed amendment was developed by the Committee to avoid duplication of specialty society representation in the House. Also, it provides an alternative whereby, in legitimate instances, a specialty society with a membership less than that stipulated, would have the opportunity for representation in the House.

Rulaws

Chapter II-Meetings

Section 1-Delegates

Current

Proposed

(e) Alternates

Each component society shall elect, at any meeting prior to March 31 of the fiscal year, alternate delegates in number equal to the number of regular delegates. A regular delegate, if unable to attend any meeting of the House of Delegates, shall so inform the secretary of his component society who shall arrange the assignment of the delegate's credentials to an alternate. An alternate, when serving, shall have all the rights and privileges of a regular delegate.

A regular delegate, if unable to attend a session of any meeting of the House of Delegates, may inform the secretary of his component society who shall arrange the assignment of the delegate's credentials to an alternate. An alternate, when registered and seated in the House of Delegates shall retain his

(e) Alternates

Each delegate may have an alternate. The delegate or an alternate may attend the sessions of the House with full rights as long as he is wearing the proper credential badge. This section also applies to representatives from specialty societies and the Medical Society of New Jersey Student Association pursuant to paragraph (f) below.

(f) Specialty Societies
Each specialty society organized in New Jersey, which is
approved by the Board of
Trustees of the Medical Society
of New Jersey, shall be entitled
to one defegate and one alternate if its membership constitutes at least 200 regular
Medical Society of New Jersey

seat during the remainder of the meeting. members. Specialty societies with fewer than 200 members may, with the recommendation of the Board of Trusters and the approval of the House of Delegates, be seated in conformity with this section. No physician may be considered a member of more than one specialty society for this purpose. The Medical Society of New Jersey Stadent Association shall be considered a specialty society for the purposes of this section of the Bylaws, and its members as regular members of the Medical Society of New Jersey.

The Committee on Revision of Constitution and Bylaws recommends that the proposal be adopted.

The Reference Committee recommends that item (e) be adopted. The Reference Committee recommends that item (f) (see page Tr 8) be adopted.

HOUSE ACTION: Item (e) Adopted as amended. Item (f) Not adopted. The entire issue of specialty society representation was referred back to the Standing Committee on Revision of Constitution and Bylaws.

2. Sessions of the House of Delegates

The Committee was requested to develop language that would allow maximum flexibility for the Annual Meeting. The Committee carefully considered this and believed the soundest approach was to give the responsibility and authority for this detail to the President.

Bylaws

Chapter II—Meetings

Section 2—House of Delegates—Meetings

Current

Proposed

(c) Sessions
The House of Delegates shall

(c) Sessions The House of Delegates shall

guests invited by the chair. The annual meeting of the House of Delegates shall consist ordinarily of three sessions. Except as otherwise provided, the principal business of these sessions shall be: First Session, presentation of annual reports, introduction of resolutions, introduction of new business, and assignment of same to reference committees; Second Session, report of the Nominating Committee and election; Third Session, presentation of and action

upon reports of reference com-

mittees, unfinished business,

and inauguration of newly

elected officers.

be determined by the President.

Same

meet on the first day of the annual meeting of this Society, but may meet in advance of, or after adjournment of, the annual meeting. The schedule of sessions and all functions shall

> 15. Special Committees Special Committees may be created by the House of Delegates or the Board of Trustees. They shall be appointed by the President. Their function and duration shall be defined clear-

Current

16. Reference Committees Such reference committees as are deemed necessary by the President shall be appointed by him. All business coming before the consideration of the House of Delegates must first be considered by the appropriate reference committee unless the House of Delegates constitutes itself as a committee of the whole.

Reference committees shall have plenary jurisdiction on the items referred to them. Their reports are subject to the final approval of the House of Delegates. They may not, however, make amendments or alterations to reports that solely are informative in nature and do not call for specific approval of the House.

.... to be inserted

Proposed

15. Committee on Medicaid The Committee on Medicaid shall consist of members appointed by the Board of Trustees. The number to be appointed shall be determined by the Board of Trustees. The Committee shall be responsible for representing the viewpoint of the members of the Medical Society of New Jersey, and to act as liaison with the Division of Medical Assistance and Health Services, Department of Human Services.

16. Special Committees Same

17. Reference Committees

The Committee on Revision of Constitution and Bylaws recommends that the proposal be adopted.

The Reference Committee recommends that the proposal be adopted.

HOUSE ACTION: Adopted.

3. Committee on Medicaid

The Board of Trustees requested that a proposal be prepared to make the Committee on Medicaid a Standing Committee.

Bylaws

Chapter IX-Administrative Councils and Committees

Section 3-Administrative Councils, Standing Committees, and Special Committees

The Committee on Revision of Constitution and Bylaws recommends that the proposal be adopted.

The Reference Committee recommends that the proposal be adopted.

HOUSE ACTION: Adopted.

Resolutions

#12

Subject:

Referred to:

Introduced by: Morris County Medical Society

Specialty Society Representation in the House of Delegates

Reference Committee on Constitution and Bylaws

Whereas, the presently proposed Bylaw change for representation of specialists in the House of Delegates of the Medical Society of New Jersey proposes that numerous societies be admitted as defined by the Bylaws, and that the Board of Trustees is able to propose additional societies, apparently without limit; and

Whereas, this change would create multiple delegates and dilute the representation of the counties and overly enlarge the House; and

Whereas, the American Medical Association now has 61 delegates from such specialty societies and 219 from the state societies; and

Whereas, some smaller specialties are represented by as many as three societies and some of the very largest are represented by only one; and

Whereas, some societies have thousands of members and open enrollment and some are small and only can be joined by invitation, and these discrepancies create unequal representation; and

Whereas, it is the intent of the Medical Society of New Jersey to represent all specialties but not all societies; now therefore be it

Resolved, that specialty society representation in the House of Delegates be limited to one delegate and one alternate to represent each of the 23 specialties of medical practice that currently have board certification; and be it further

Resolved, that it is the incumbent duty of the various societies in each medical specialty to elect the delegate and alternate delegate to represent the specialty.

The Reference Committee was agreed that Resolution #12 was not adequate in its scope of the problems created by new proposed item (f) and recommends that the item be reworded as follows:

Each specialty society organized in New Jersey that represents a primary specialty board as defined by the American Board of Medical Specialties shall be entitled to one delegate and one alternate delegate in the House of Delegates of the Medical Society of New Jersey. In the event that there shall be more than one society representing a primary specialty board, their combined membership shall choose the society that will elect the delegate and alternate delegate.

The Medical Society of New Jersey Student Association also shall choose a delegate and alternate delegate who shall be afforded all the rights and privileges of a delegate and alternate delegate, including the right to vote.

These delegates in no way shall lessen the membership of the House as defined in Chapter II, Section 1 (a) Apportionment and Election, as apportioned to the counties, but shall be in addition to these.

The Reference Committee recommends that the revision to item (f) be adopted (see page Tr 6).

HOUSE ACTION: Not adopted. The entire issue of specialty society representation was referred back to the Standing Committee on Revision of Constitution and Bylaws.

#20

Introduced by: Christopher Babigian, M.D., Delegate, Bergen County
Subject: Direct Candidacy for Elective Office
Referred to: Reference Committee on Constitution and Bylaws

Whereas, it is desirable to increase participation in the leadership of the Medical Society of New Jersey by allowing all those interested to announce their candidacy without the

inherent restrictions and influence of a nominating committee; and

Whereas, the AMA does not use a nominating committee

for officers and trustees; now therefore be it

Resolved, that the Constitution and Bylaws of the Medical
Society of New Jersey be changed to eliminate the current

nominating procedure for officers and trustees; and be it further

Resolved, that any person desirous of becoming an officer or trustee of the Medical Society of New Jersey may announce his or her candidacy publicly and campaign for such office.

The Reference Committee **recommends** that Resolution #20 be rejected.

HOUSE ACTION: Rejected in accordance with the recommendation of the Reference Committee.

#21

Introduced by: Christopher Babigian, M.D., Delegate, Bergen County

Subject: Voting Privileges on AMA Matters Restricted to AMA Members

Referred to: Reference Committee on Constitution and Bylaws

Whereas, the House of Delegates elects delegates to the AMA who help shape AMA policy and consequently affect the position and activities of AMA members; and

Whereas, not all members of the House of Delegates of the Medical Society of New Jersey are members of the AMA; and

Whereas, the votes of nonmembers significantly may influence the election of delegates; and

Whereas, it is contrary to the democratic process to have representation without membership; now therefore be it

Resolved, that only members of the AMA shall be eligible to vote in the election of AMA delegates in the Medical Society of New Jersey House of Delegates.

The Reference Committee **recommends** that Resolution #21 be rejected.

HOUSE ACTION: Rejected in accordance with the recommendation of the Reference Committee.

REFERENCE COMMITTEE "A"

Reports:
PRESIDENT
BOARD OF TRUSTEES
JUDICIAL COUNCIL
EXECUTIVE DIRECTOR
COMMITTEE ON LONG-RANGE
PLANNING AND DEVELOPMENT
RESOLUTIONS #4, #5, #6, #11, #13

Members:

Frank J. Laudonio, M.D., Chairman, Union Frank Gingerelli, M.D., Bergen Ernest S. Redfield, M.D., Gloucester Felix G. Salerno, M.D., Hunterdon Paul Steinlauf, M.D., Passaic John J. Pastore, M.D., Alternate, Cumberland

President

Armando F. Goracci, M.D., Woodbury

(Reference Committee "A")

It has been an interesting year as the reports and resolutions before the House will establish.

The election of a new governor and the resulting change of administration has produced trial and opportunity for the Society.

One of the major questions was whether or not the Governor would call for legislation that would permit a nonphysician to become Commissioner of Health. Rumors and counterrumors arose. It still is not clear whether the Governor seriously considered such a measure. However, he did end the debate with the appointment of Doctor Shirley Mayer. She is familiar with our perspective and I believe that with our assistance she truly will get this state properly oriented in the field of public health.

The DRG problem and our overall relationship to the New Jersey Hospital Association are two matters that will require increasing attention. A resumption of regular meetings with the Executive Committee of the New Jersey Hospital Association presents an opportunity to cooperate on issues of common concern.

The new session of the Legislature is about 60 days old and there have been 2,000 bills introduced, with about 100 bills of concern to the medical profession. I have received a number of letters regarding the no smoking law. No smoking signs were mailed to all members to assist them in compliance. The content of the signs was dictated by statute. The Board has dealt with a number of controversial issues and, in view of the diversity of opinion, has managed to produce generally well-accepted solutions. It has been difficult and there just does not seem to be a way to satisfy everyone.

The Tax Court litigation involving the deductibility of subordinated loan payments is to begin trial in May. We are hopeful the Tax Court will recognize these expenses as ordinary and necessary under the Internal Revenue Service Code.

In closing, I would like to express my gratitude to the Officers and Trustees, as well as to our membership and staff for their assistance during this past year.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Board of Trustees

William Greifinger, M.D., Chairman, Belleville

(Reference Committee "A")

I am privileged to report on the activities of the Board of Trustees during the past year. Much has been accomplished, but more needs to be done. Those who follow the activities of the Board in person at the monthly meetings or review their actions as reported in *The Journal* will acknowledge the sincerity and thoroughness of the elected leaders.

Some of the highlights are enumerated here. Others are in the reports of the President, Secretary, Treasurer, Executive Director, councils, and some of the committees.

To be informed is to be productive. All our members are urged to participate in the Medical Society's activities.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

AMA DEPARTMENT OF NEGOTIATIONS

(Reference Committee "A")

New Jersey introduced a resolution at the 1981 Annual Meeting calling for the AMA to maintain its Department of Negotiations.

Although the resolution was not adopted, testimony before the Reference Committee supported the value of the AMA activity in the area of negotiations and the Committee was advised that the more valued services of the activity will continue to be available to the federation in the newly reorganized staff structure. While the activity's organization

tional and administrative structure may be changed, the service will remain available to respond to requests for assistance and consultation

The Reference Committee recommends that the report be

HOUSE ACTION: Filed.

DISCONTINUANCE OF FUNDING FOR HEALTH MAINTENANCE ORGANIZATIONS

(Reference Committee "A")

At the 1981 AMA Annual Meeting, the New Jersey delegates presented a resolution urging that the AMA recommend to the enabling committees of Congress and to the Health Care Finance Administration (HCFA) that any further grants or loans to health maintenance organizations be discontinued.

The House of Delegates adopted the following substitute resolution in lieu of the resolution:

That the AMA continue to support the elimination of governmental funds for new start-ups of HMOs and the termination of governmental funds for other HMOs after completion of the current funding cycle.

The Reference Committee recommends that the report be

HOUSE ACTION: Filed.

DRG APPEAL PROCESS

(Reference Committee "A")

In July, 1981, the Board of Trustees approved the formation of a Committee on Peer Review to act as the state-wide appeal entity on determinations made by hospitals and individual PSROs under the DRG program.

To date, the Committee has met on three occasions and considered 25 cases.

The Reference Committee recommends that the report be

HOUSE ACTION: Filed.

EQUAL RIGHTS FOR MEN AND WOMEN

(Reference Committee "A")

The AMA Delegation introduced a resolution at the 1981 Annual Meeting asking the AMA to affirm the concept of equal rights for men and women. The resolution was adopted by the House of Delegates.

The Reference Committee recommends that the report be

HOUSE ACTION: Filed.

LIMITED CERTIFICATION FOR X-RAY TECHNICIANS

(Reference Committee "A")

During the summer, the Board voted to sustain its previous action to suspend legislative efforts to have introduced a bill that would broaden the scope of limited certification of x-ray technicians and to work out a procedure for granting limited licensure to x-ray technicians who perform limited x-ray work in physicians' offices under the direct supervision of the physician. Individual physicians had urged the Board to renew these efforts, but the Radiological Society of New

Jersey and the New Jersey Radiation Protection Commission still are opposed to any effort to create limited licensure of x-ray technicians.

The Reference Committee recommends that the report be

HOUSE ACTION: Filed.

OPPOSITION TO HEALTH SYSTEMS AGENCIES

(Reference Committee "A")

A resolution was introduced by New Jersey asking the AMA to oppose health systems agencies and to continue to seek repeal of federal health planning laws.

A report from the Board of Trustees informed the House of the AMA's activities to repeal the Health Planning Act and to remove HMO preference from the Act. The House of Delegates, therefore, adopted the report from the Board of Trustees in lieu of the resolution.

The Reference Committee recommends that the report be

HOUSE ACTION: Filed.

OSTEOPATHS' USE OF M.D. DESIGNATION

(Reference Committee "A")

In the case between the osteopathic physicians and the State Board of Medical Examiners, the court ruled in favor of the State Board and declared that individuals are to be licensed according to the degree by which they take the examination and are required to use that degree on all certificates, prescriptions, reports, and other material.

The Reference Committee recommends that the report be filed

HOUSE ACTION: Filed.

REPEAL OF PROFESSIONAL STANDARDS REVIEW (PSRO) LEGISLATION

(Reference Committee "A")

In 1981, the New Jersey Delegation introduced a resolution that called for the AMA House of Delegates to reaffirm its position urging the repeal of the Professional Standards Review Organization (PSRO) legislation.

The following substitute resolution was adopted by the House.

That the AMA reaffirm current policy to continue physician-directed efforts to ensure that care provided to patients is of high quality, appropriate duration, and rendered in an appropriate setting at a reasonable cost, and to encourage the elimination of all government-directed peer review programs including PSRO.

The Reference Committee recommends that the report be

HOUSE ACTION: Filed.

REPORTING OF PHYSICIANS AND OTHER PROFESSIONALS VIOLATING REGULATION OF PRACTICE STATUTES

(Reference Committee "A")

The following policy, adopted by the State Board of Medical Examiners on February 10, 1982, was presented to the Board for review:

- a. For the purpose of rehabilitation of a licensee who voluntarily comes to the Board and recognizes a problem of impairment by substance abuse or other disability, the Board shall give special consideration in formulating a rehabilitation program to the extent consistent with public health, safety, and welfare.
- b. The Medical Board shall maintain its active and ongoing effort to keep any doctor's public record clear of unofficial material received from consumers raising possibly frivolous or nonmeritorious charges.
- c. The Medical Board shall continue its practice of consulting experts and specialists when necessary in particular cases, to insure that an opinion by persons knowledgeable in a given area will be an ingredient in the overall evaluation of a professional's performance.
- d. The Medical Board shall continue to issue statements on the outcome of the Board's disposition of a case commensurate with the publicity given the bringing of a complaint.
- e. The Board shall continue to observe N.J.A.C. 13:44A-1.5 which sets forth what records shall not be deemed public. That rule provides that: "The name of any person providing information to the Attorney General, the director, or a board in good faith shall not be disclosed unless such disclosure is essential to the conduct of a disciplinary proceeding which is conducted pursuant to the act."

The Board of Trustees found the policy format acceptable, as long as it is reasonably applied.

The Reference Committee recommends that the report be

HOUSE ACTION: Filed.

RULE ON MAJOR SURGERY

(Reference Committee "A")

In response to insurance carriers' questioning the medical need for an assisting surgeon, the State Board of Medical Examiners has reiterated its position that any major surgery shall be performed only by a duly qualified surgeon with a duly qualified assisting physician or surgical resident in an approved training program, except in a matter of dire emergency.

The Reference Committee **recommends** that the report be filed.

HOUSE ACTION: Filed.

SCHEDULE II NARCOTIC PRESCRIPTIONS

(Reference Committee "A")

In September, 1981, the Board of Trustees considered a proposed regulation of the State Board of Medical Ex-

aminers on the reporting of Schedule II narcotic prescriptions. The proposal was found to be contrary to the public interest, since it seemed to imply that narcotic drugs have no legitimate medical usage. The reporting requirement was not detailed sufficiently, and presented a hazard to patients and a burden to physicians. Additionally, it would have presented a breach of physician-patient confidentiality. The Board of Trustees voiced strong opposition to the proposal and urged component and specialty societies to do likewise.

At its meeting in November, the State Board of Medical Examiners voted to withdraw the proposal.

The Reference Committee recommends that the report be filed (see page Tr 15).

HOUSE ACTION: Filed.

Supplemental Report #1

REEVALUATION OF THE DRG SYSTEM OF REIMBURSEMENT

(Reference Committee "A")

The following resolution submitted by the Essex County Medical Society was adopted unanimously by the Board of Trustees:

Resolved, that the Medical Society of New Jersey petition both the Governor and the Commissioner of Health to reevaluate the entire DRG system of reimbursement; and be it further

Resolved, that the DRG program shall not be facilitated further until this study has been completed; and be it further

Resolved, that should this study find that the DRG system is not cost effective, immediate steps be taken for discontinuing the entire program in the state of New Jersey.

The Reference Committee recommends that the report be

HOUSE ACTION: Filed.

Supplemental Report #2

HEALTH CARE COALITIONS

(Reference Committee "A")

A working coalition with the New Jersey Business Group on Health is being established. An initial meeting was held on April 1, 1982, and another meeting is scheduled for May 26, 1982.

The Reference Committee recommends that the report be filed

HOUSE ACTION: Filed.

Judicial Council

Albert F. Moriconi, M.D., Chairman, Trenton

(Reference Committee "A")

From official records the Judicial Council presents a summary of its operations and those of county judicial committees for the period May 17, 1981, to March 1, 1982.

PROPRIETY OF JUDICIAL COMMITTEES FORWARDING THIRD-PARTY FEE COMPLAINTS TO SPECIALTY SOCIETIES FOR THEIR CONSIDERATION

Appeal hearings granted

Formal opinions rendered

Formal opinions revised

(Officially Adopted October 14, 1981, as MSNJ Opinion #30)

The Bergen County Medical Society has questioned whether it is appropriate to forward third-party fee complaints to specialty societies for their consideration. The question also was raised regarding an administrative review fee by the specialty societies.

The Council recognizes that fee questions sometimes can require referral to a specialty society. It is, indeed, appropriate for a judicial committee to refer such a question for expert opinion or advice, bearing in mind that the judicial committee is to make the final determination.

If the specialty society requires that a modest administrative fee, i.e. \$25 to \$50 be paid by the third party, the Council views that situation as being within reasonable bounds

STATEMENT ON MEDICAL BILLS SUBMITTED TO PATIENTS: BILL IS PAYABLE ON PRESENTATION; INSURANCE FORMS EXECUTED ONLY WHEN ACCOUNT IS PAID IN FULL

(Officially Adopted February 28, 1971, as MSNJ Opinion #66) (Revised May 2, 1976, as MSNJ Opinion #19) (Revised October 14, 1981)

In considering the question as to whether it is ethical to inscribe on bills submitted to patients: "Bill is payable on presentation. Insurance forms executed only when account is paid in full," the Council recognizes the following concepts.

Ideally, the physician should be paid promptly. If the physician is not paid as promptly as other creditors, he should recall that he is a professional man, with all the perquisites that the term implies. Patients, in large numbers, carry insurance to cover the cost of medical services; however, the physician is not a party to the insurance contract nor responsible for its provisions. If the insurance coverage

carried by the patient provides for assignment of benefits to the physician and those benefits are assigned to the physician, it is unethical for the physician to demand payment prior to the completion of insurance forms. If the coverage in question does not provide assignable benefits or the benefits are not assigned to the physician, it is not, per se, unethical to require payment prior to completion of forms. (This opinion does not apply to Medicare.)

N.B. The Council, at this writing, is in the process of revising its Opinion #23 entitled, Ethicality of an Ophthalmologist Employing in His Office an Optician to Sell or Dispense Glasses or Contact Lenses Whereupon a Portion of the Profits Would Inure to the Benefit of the Physician in Ouestion.

FEDERAL TRADE COMMISSION/INVESTIGATION OF THIRD-PARTY FEE COMPLAINTS

The Judicial Council advises that it is aware of the activities of the Federal Trade Commission and the response of the AMA. It believes, however, that if the medical profession is to serve the public and if the profession is to be one of integrity and dedicated service to humanity, we must provide a mechanism whereby complaints or inquiries by the patient or insurance companies involving ethics, professional conduct, and the reasonableness of fees of physicians rationally can be adjudicated. The Judicial Council further advises that the county societies may refer these cases to the specialty societies for their usual and customary fee review with the county committees making the final decision.

The Council is of the opinion that component judicial committees are not acting in conformity with MSNJ policy if they refuse to process third-party fee complaints and directs them to conform to the judicial mechanism of the Society.

Only by means of a full understanding and observance of the regulations can the judicial committees together with the Judicial Council succeed in functioning at the level of adequacy intended by MSNJ's House of Delegates.

EXCESSIVE FEE COMMITTEES (N.J.A.C. 13:35 6.15)

In answer to the Board's request for a clarification of the excessive fee committee arrangement, a communication was received from the Executive Secretary of the State Board of Medical Examiners, advising that the committees appointed by the State Board to review, investigate, and make recommendations on consumer complaints referred to them by the State Board, will expect to direct their energies to instances of unconscionable overreaching on the part of the category of licensees involved. In matters that appear to involve a legitimate grievance on the part of the consumer, but which do not attain a degree of conduct which is regarded as unconscionable, the committee will advise the consumer that there are other ways to resolve the problem, and chief among those options would be a professional society review committee, such as judicial committees of the county medical societies. Thus, it is anticipated that the Medical Society of New Jersey will continue to play the constructive and

mediating role it has performed for those licensees who are members of the Society, and who acquiesce in accepting the determinations.

Mr. Maressa explained that, in effect, the State Board of Medical Examiners did not accept the recommended concept of using the Society's judicial mechanism in handling excessive fee complaints until the State Board itself has considered the case.

The Board was advised that some component medical societies have taken the position that when a member of their society is contacted by the Division of Consumer Affairs on a question involving the reasonableness of a fee, the physician may present his/her case to the county judicial committee. If the judicial committee agrees that the fee is reasonable, a representative of the county will appear with the physician

to offer support before the State Board's committee. However, the importance of advising physicians that they should be represented by an attorney at the hearing was noted.

Consideration was given to the question of whether to support the fee committee arrangement of the State Board or to recommend that county judicial committees function in a similar manner to that enacted by those counties electing to do so.

The Board directed that the county medical societies be encouraged to provide this service to their membership. (Specialty societies were notified of this action.)

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Executive Director

Vincent A. Maressa, Lawrenceville

(Reference Committee "A")

The headquarters operation has settled into a fairly smooth routine. The New Jersey State Medical Underwriters, Inc. has expanded the size of its leased space, and currently we are having discussions with the Academy of Medicine regarding additional office area for their needs.

Negotiations continue between Society committees and staff and the Division of Medical Assistance and Health Services over the transition from a hospital clinic service concept to the physician's office as the preferred site of delivery for most care. We have not secured the desired result, but progress is being made.

Efforts to secure a reasonable and responsible regulatory format as well as a disciplinary system that affords fundamental fairness to physicians continue to be pursued diligently. A number of oppressive and unacceptable legislative proposals on this topic have been introduced; the proposals have consumed, and will consume, a major portion of Society resources.

The DRG program is of consistent concern. A paper recently published in *JAMA* indicates that the program has major operational deficiencies and basic design faults. The

Society has asked the Legislature to move rapidly to create a legislative committee to determine whether New Jersey should continue with this experiment since adverse practice and economic consequences seem unavoidable.

The public relations program has become a situation of conflicting concepts. I am concerned that its continued use to assert policy positions may be diluting the potential for positive imagery. The Council, Board, and House should settle on what objective the program should serve. It must be remembered that the program presently is directed to the general public and not the physician community. Additionally, it is impossible to satisfy the editorial criticism of 9,300 members and their spouses on the topics of discussion.

Major issues in the next few years will be competition between physicians, competition between physicians and health care facilities, and competition between physicians and ancillary providers. I believe the physician will be the focal point in any system; and that in a truly competitive situation, given equal opportunity, the physician will secure the allegiance of the patient population.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Committee on Long-Range Planning and Development

William J. D'Elia, M.D., Chairman, Spring Lake

(Reference Committee "A")

The Committee has seen several of its projects pass from planning into implementation. We believe the changes will produce a more cohesive and representative organization.

APPOINTMENT OF MEDICAL STUDENTS AND RESIDENTS TO ADMINISTRATIVE COUNCILS AND COMMITTEES

The Board approved these concepts in July, 1981. Resident physicians now are serving on four different councils and

committees. The Board continues to search for willing residents and medical students to complete this project.

GUIDELINES FOR THE HOUSE OF DELEGATES

The House agenda will be restructured to place the consideration of resolutions in a more prominent perspective. The reports to the House will be the following: Board of Trustees; Judicial Council; President; Secretary; Treasurer; Executive Director; Council on Legislation;

Council on Medical Services; Council on Mental Health; Council on Public Health; Council on Public Relations; Committee on Annual Meeting; Committee on Finance and Budget; Committee on Long-Range Planning and Development; and Committee on Revision of Constitution and Bylaws.

Other reports will be directed to the House where the Board has so requested or where the House itself has so requested.

Purely informational reports not covered by the above will be published in *The Journal* if their content is determined to be of importance to the membership.

A new policy concerning resolutions will be utilized where resolutions more than five years old and not superseded by new actions will be presented for reconsideration. In this fashion, we can assure that policy is consistent with the desires of the House.

HOUSE OF DELEGATES REPRESENTATION AND BYLAW AMENDMENTS

Our Committee met with the Committee on Revision of Constitution and Bylaws on January 13, 1982. Consideration was given to the topic of specialty society representation. The Bylaw proposals are presented in the report of the Committee on Revision of Constitution and Bylaws. We urge their adoption by the House of Delegates.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Resolutions

#4

Introduced by: Gloucester County Medical Society

Subject: American Medical Association Dues for Retired or Semiretired Physicians

Referred to: Reference Committee "A"

Whereas, there has been a considerable decline in the membership in the AMA, and since total membership counts greatly when lobbying for political consideration of medically related legislation; now therefore be it

Resolved, that when a member of the AMA in good standing for 20 or more years reaches the age of 60, and retires or semiretires, his dues shall be reduced to one-half of his active membership dues, or to the level of the dues of a resident-member of the AMA; and be it further

Resolved, that semiretirement shall be defined as working 20 or less hours per week and/or earning the equivalent of a partient's stipend, or less than \$20,000 per year.

The Reference Committee recommends that Resolution #4 be amended to read as follows:

Resolved, that when a member of the AMA in good standing for 20 or more years retires or semiretires, his dues shall be reduced to one-half of his active membership dues, or to the level of dues of a resident-member of the AMA; and be it further

Resolved, that semiretirement shall be defined as working 20 or less hours per week and/or earning less than \$20,000 per year; and be it further

Resolved, that the above resolution be presented to the AMA House of Delegates.

The Reference Committee recommends that the Substitute Resolution be adopted.

HOUSE ACTION: Adopted.

#5

Introduced by: Frank J. Primich, M.D., Delegate, Hudson County

Subject: Withdrawal from the Federation of the American Medical Association

Referred to: Reference Committee "A"

Whereas, the American Medical Association represents many physicians who are not involved directly in patient care; and

Whereas, most of those involved in major policy decisions are removed partially or completely from said direct patient care: and

Whereas, many policy decisions and indecisions do not reflect the opinions or the interests of the majority of the grass-roots members; now therefore be it

Resolved, that the Medical Society of New Jersey investigate the feasibility and practicality of withdrawing from the Federation of the American Medical Association.

The Reference Committee felt there is a mechanism in place to change the policies of the AMA through the Medical Society of New Jersey's elected delegates to the AMA. Also, the Committee felt that since the House of Delegates persistently has rejected the concept of compulsory membership in the AMA, it would reject equally the possibility of compulsory membership.

The Reference Committee recommends that Resolution #5 be rejected.

HOUSE ACTION: Rejected in accordance with the recommendation of the Reference Committee.

Introduced by: Dirck L. Brendlinger, M.D., Delegate, Burlington County

Subject: Schedule II Drug Prescription Program

Referred to: Reference Committee "A"

Whereas, the State Board of Medical Examiners already has attempted to impose its own regulations for the control of Schedule II drug prescriptions in New Jersey; and

Whereas, it is in the interest of the Medical Society of New Jersey to take an active role in assuring high-quality medical care in the state; and

Whereas, successful programs involving state medical societies already in operation in New York and Maryland have demonstrated a reduction in prescriptions of selected Schedule II drugs in those states; now therefore be it

Resolved, that the Board of Trustees appoint a panel to investigate the potential advantages and disadvantages of a program, including its cost, under which members of the Medical Society of New Jersey are evaluated by the state or county medical society while nonmembers deal directly with the State Board of Medical Examiners.

The Reference Committee **recommends** that Resolution #6 be adopted (see page Tr 11).

HOUSE ACTION: Adopted.

#11

Introduced by: Union County Medical Society

Subject: Conflict of Interest

Referred to: Reference Committee "A"

Whereas, one of the stated constitutional purposes of the Medical Society of New Jersey is to safeguard the rights of the practitioners of medicine; and

Whereas, the Board of Trustees is the executive body of this Society; and

Whereas, the Board of Trustees has taken a position of opposition to the excessive fee review committees of the State Board of Medical Examiners; and

Whereas, there is an inherent conflict of interest in serving as a member of the Board of Trustees and as a member of a State Board of Medical Examiners' excessive fee review committee concurrently; and Whereas, that same inherent conflict will occur in service on any committee which has the opposition of the Medical Society of New Jersey House of Delegates or Board of Trustees; now therefore be it

Resolved, that in the future, no Trustee shall accept appointment to any committee the existence of which the House of Delegates or the Board of Trustees has voted to oppose.

The Reference Committee unanimously recommends that Resolution #11 be adopted.

HOUSE ACTION: Not Adopted. The resolution was rejected.

#13

Subject:

Referred to:

Introduced by: Charles Harris, M.D., Delegate, Ocean County

Arbitration Panel To Hear Physician Fee Complaints

Reference Committee "A"

Whereas, the State Board of Medical Examiners has the power to suspend and revoke licenses; and

Whereas, the State Board of Medical Examiners at any and all hearings is represented by the Attorney General of the State of New Jersey; and

Whereas, the defendant physician has no assurance that a hearing about fees will be restricted entirely to the fee

Whereas, material relevant to the case, but not relevant to the fee problem, can be introduced by a disgruntled patient; and

Whereas, this might lead the State Board of Medical Examiners to an examination of questions of medical practice that are not relevant to fees; and

Whereas, the expanded hearing could be detrimental to the defendant physician and lead to further hearings; now therefore be it

Resolved, that all complaints concerning physicians' fees

be heard by an arbitration panel independent of the State-Board of Medical Examiners, with its findings to be forwarded to the State Board of Medical Examiners; and be it further

Resolved, that the Medical Society of New Jersey petition the Governor and/or the New Jersey Legislature, or take whatever other means are available to accomplish this end.

The Reference Committee felt already there are two mechanisms in place to investigate physicians' fees, and that the introduction of a third mechanism would not serve the intent of the resolution.

The Reference Committee **recommends** that the following Substitute Resolution be adopted:

Resolved, that the Medical Society of New Jersey request the Governor and the Attorney General to review the procedural practices of the State Board of Medical Examiners.

HOUSE ACTION: Adopted.

REFERENCE COMMITTEE "B"

Reports:
SECRETARY
TREASURER
COMMITTEE ON FINANCE AND BUDGET
NOMINATIONS FOR EMERITUS MEMBERSHIP
BOARD OF TRUSTEES' ITEM
RESOLUTIONS #15, #17

Members:
Hillel M. Ben-Asher, M.D., Chairman, Morris
Mary T. DiMedio, M.D., Salem
Roland E. Johnson, M.D., Sussex
John H. Lifland, M.D., Somerset
George L. Triebenbacher, M.D., Ocean
John A. Zapp, M.D., Alternate, Hunterdon

Secretary

Arthur Bernstein, M.D., Millburn

(Reference Committee "B")

The office of the Secretary has continued its usual routines, primarily involving maintenance of membership records, correspondence, minutes of Board of Trustees' meetings, telephone inquiries, and completion of numerous questionnaires originating from various sources.

During the administrative year, the Secretary attended the meetings of the Board of Trustees and the several committees of which he is chairman, member, or advisor.

MEMBERSHIP (as of December 31, 1981)

Active:	Paid 7,657	
	Exempt 881	
	*	**8,538
*Associate:	Paid	1
**Affiliate:	Paid	86
	Exempt	3
State Emerit	us	642
	ve	9.270
		-,
State Honora	ary	8
	instated Members:	
		413
	neritus	1
	e	î
		4
Change of st	atus	4
	hin the state	40
	t-of-state and resignations	74
	ceased	132
	opped	168
	nonpayment of dues) 106	100
	comply with bylaw	
	nents regarding	
	ense revoked) 1	
	ense surrendered) 4	
	ense suspended)	
	ense voluntarily	
	1	
**Affiliate	(nonpayment of dues) 1	

^{*}Associate membership (nonlicensed in New Jersey) designates Interns and Residents.

AMA MEMBERSHIP

A total of 6,372 members of the Medical Society of New Jersey maintain active membership in the AMA. The Society's representation in the AMA House of Delegates stands at seven delegates—one for each thousand members, or fraction thereof.

CREDENTIALS

The Committee on Credentials throughout the year reviewed and acted upon membership applications and their supporting credentials as submitted through the component societies.

The following statistical breakdown reflects the Committee's activities during the period March 1, 1981, through February 28, 1982.

Received:	*Associate Residents 1	Active 290	Total 291
	*Associate Residents	Active	Total
Reviewed and found:			
Satisfactory	0	250	250
Unsatisfactory	0	0	0
Pending:	1	33	34
Withdrew:	0	7	7
Grand Total	1	290	291

^{*}Associate membership (nonlicensed in New Jersey) designates Interns and Residents.

The Committee extends appreciation to the directors and the secretaries of component societies, and to those who assist them, as well as to the county credentials committees, for their cooperation in processing membership applications. It especially would be helpful to the Credentials Committee of MSNJ if those who process credentials in the component societies would call specific attention to any deficiencies or questionable data being submitted on the application form. This procedure will help insure more accurate and speedy evaluation of credentials. The Chairman wishes to thank his Committee members and the MSNJ staff for their diligence and cooperation.

MEMBERSHIP DIRECTORY

The 1981 Membership Directory now has been available for about one year.

Within the next few months questionnaires will be mailed to all members so that production on the 1983 Membership Directory might begin. In an effort to expedite production, it would be appreciated if members returned the questionnaires promptly after receipt.

The Reference Committee recommends that the report be filed

HOUSE ACTION: Filed.

^{**}Affiliate membership-physicians who no longer practice in New Jersey.

^{***}Adjusted for transfers out-of-state, resignations, and deaths.

Treasurer

Rudolph C. Gering, M.D., Treasurer, Pennington

(Reference Committee "B")

These interim financial statements have been prepared in accordance with the accounting system recommended by our external auditors, Ernst and Whinney.

Since they are interim statements the figures are un-

audited. However, a complete audit will be conducted of the books of the Society as of May 31, 1982, and an audited report prepared as of that date. A complete audit was made as of May 31, 1981.

Balance Sheet-January 31, 1982 (Unaudited)

Assets Cash Marketable securities—at cost (approximately market) Accounts receivable—member assessments Medical student loans (net of allowance for doubtful loans		\$ 27,270 861,269 921,200
of \$30,000) Notes receivable—physicians		332,612
Property, plant, and equipment		5,200
Land Building and improvements Furniture and fixtures	\$ 150,000 2,434,301 348,530 2,932,831	
Less allowances for depreciation	(260,303)	2,672,528
Prepaid expenses Other assets	(200,303)	42,000 44,417
		\$4,906,496
Liabilities and Fund Balance Accounts payable and accrued expenses Assessments collected for AMA Assessments collected for NJFHCE		\$ 129,767 51,005 30,430
Mortgage payable		211,202 1,561,913 1,706,833 393,482 1,033,066 \$4,906,496

Statement of Revenue and Expenses Eight Months Ended January 31, 1982 (Unaudited)

Revenue	
Membership dues	\$1,107,015
Publication sales and advertising income	120,974
Amortization of professional liability assessments	124,065
Investment income	69,830
Rental income	47,322
Annual meeting	26,000
Other income	85,712
Total Revenue	1,580,918
Expenses	1,500,710
Conferences and meetings	238,224
Member services	341,336
Total Program Expenses	579,560
General and administrative	749,002
Interest	104,524
Depreciation	61,620
Total Expenses	1,494,706
·	., ,
Excess of revenue over expenses	\$ 86,212
Fund balance at June 1, 1981	946,854
Fund balance at January 31, 1982	\$1,033,066

The Reference Committee recommends that the report be filed. HOUSE ACTION: Filed.

Committee on Finance and Budget

Palma E. Formica, M.D., Chairman, New Brunswick

(Reference Committee "B")

The Committee on Finance and Budget met on Thursday, April 1, 1982, for the purpose of reviewing the proposed budget for the 1982-1983 fiscal year.

The Committee made the following recommendations that were approved by the Board of Trustees:

- 1. That the budget for the fiscal year beginning June 1, 1982, and ending May 31, 1983, in the amount of \$2,403,335 with \$1,893,285 to be raised through member assessments be adopted.
- 2. That the 1983 assessment be set at \$255 per regular dues-paying member.
- 3. That the 1983 assessment be set at \$25 per member for affiliate and associate members.

- 4. That there be an assessment for 1983 of \$25 per member for licensed residents provided the individual is in a residency program entered upon within a reasonable time after his or her graduation from medical school.
- 5. That the 1983 assessment be set at \$5 per student for medical students.
- That for members having difficulty making a lump sum payment of dues, arrangements be made so that dues might be paid to the county societies through the use of a credit card system.
- 7. That the Professional Liability Insurance Program be referred to the Committee on Medical Defense and Insurance for reevaluation for future activities.

Statement of Revenue and Expenses for Proposed Budget Fiscal Year Ending May 31, 1983

Revenue (other than member assessments)	
Advertising income	\$ 106.550
Amortization of professional liability assessment	177,700
Investment income	60,000
	81,800
Rental income	5.000
Annual meeting	25,000
Membership directory	,
Other income	54,000
	510,050
Expenses	202 (25
Conferences and meetings	393,625
Member services	329,700
Publications	195,550
Grant to MSNJ medical student loan fund	3,000
Total Program Expenses	921,875
General and administrative	1,221,760
Interest	154,700
Depreciation	105,000
Total Expenses	2,403,335
Amount of expenses over revenue to be raised	
through member assessments (including The Journal	******
subscription and Annual Meeting assessment)	\$1,893,285
Revenue from Member Assessments	
Operating Year Ending May 31, 1983	
Operating Teal Entiting May 51, 1705	
(7 months) 6/1/82 through 12/31/82 @ \$245 x 7,600	\$1,086,167
(5 months) 1/1/83 through 5/31/83 @ \$255 x 7,600	807,500
(c mentio, 1,1/22 medgi. 5/51/25 & 5225 k 7,000	\$1.893.667
	,,

Proposed Budget Fiscal Year Ending May 31, 1983

	Approved Budget 1981-82	Estimate For Y/E 5/31/82	Proposed Budget 1982-83
Compensation			
Salaries	\$ 673,000	\$ 655,000	\$ 700,000
Pension plan	104,000	92,081	100,000
	777,000	747,081	800,000
Professional Fees			
Audit	13,500	15,449	14,000
Legal	15,000	10,174	15,000
Actuarial	1,400	841	1,400
Special consultants	12,000	3,300	10,000
G 7 1.G to	41,900	29,764	40,400
Councils and Committees			
Public Relations	140,000	157,400	140,000
Legislation	25,000	20,000	20,000
President and presidential officers	33,000	31,000	34,000
AMA delegates	50,000	49,000	60,000
MSNJ Auxiliary	19,000	14,000	17,825
Medical Education	30,000	26,612	28,000
Board of Trustees	37,000	35,000	38,000
Judicial Council	800	, 500	800
Reimbursement of reps. to mtgs.	6,000	3,000	4,000
Other councils and committees	16,000	15,000	21,000
Committee on Impaired Physicians			30,000
Member Service	356,800	351,512	393,625
Membership Directory		24.500	
Annual Meeting	120,000	26,500	37,000
PLI	120,000	105,000	115,000
The Journal	175,000	180,000	177,700
The Journal	170,500	178,500	195,550
David .	465,500	490,000	525,250
Donations			
Medical Student Loan Fund	3,000	3,000	3,000
General Administrative and Operating Expenses Building operations—			
(including depreciation)	378,600	367,019	386,700
Insurance	62,500	65,800	75,500
Payroll taxes	48,000	50,506	56,000
Other general office costs	118,800	120,257	122,860
	607,900	603,582	641,060
	\$2,252,100	\$2,224,939	\$2,403,335

The Reference Committee recommends approval of recommendations 1 through 7 (see page Tr 18).

HOUSE ACTION: Approved.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Supplemental Report #1

(Reference Committee "B")

Resolutions #19 and #34 from the 1981 Annual Meeting were referred to our Committee for study and report. Both were similar in nature and called for the use of an installment computerized bill and collection system.

A system of this type would be costly to design and implement while maintaining the county society as the billing entity. We, therefore, determined that the use of bank credit

cards for dues payments would be the most practical solution. This item is covered in recommendation #6 of our Annual Report. The MSNJ staff will assist county societies in their negotiations with local banks if so requested.

The Reference Committee **recommends** that the report be filed.

HOUSE ACTION: Filed.

Nominations for Emeritus Membership

(Reference Committee "B")

The following nominations for election to emeritus membership at the 1982 Annual Meeting have been received from the component societies. Conforming to the provisions of the Bylaws, Chapter I—Membership, Section 1—Composition (e), all nominees have been members in good standing of a component society and who by reason of age or infirmity have retired from the active practice of medicine; or members of this Society who have been disabled by reason of military service.

Atlantic County

Louis Feinstein, M.D., Margate City; Age 74 John W. Hurst, M.D., Mays Landing; Age 59 William A. Joy, M.D., Ventnor City; Age 61

Bergen County

Stewart F. Alexander, M.D., Park Ridge; Age 68 Edward Calabrese, M.D., Ballston Lake, NY (formerly of Englewood); Age 73 William J. Follette, M.D., Edgartown, MA (formerly of

Englewood); Age 66 Alexander J. Graziano, M.D., Madison; Age 51

Frederick S. Leonard, Jr., M.D., Scotch Plains; Age 71 Marion McIlveen, M.D., Ridgewood; Age 71

Harry Rhodes, M.D., Shawnee-on-Delaware, PA (formerly of Hasbrouck Heights); Age 66

Katherine West, M.D., Englewood; Age 78-

Burlington County

Bernard F. Leonard, M.D., Burlington; Age 67 J. Arthur Steitz, M.D., Mount Holly; Age 66 Ralph H. Van Meter, M.D., Moorestown; Age 70

Camden County

Philip V. Lynch, M.D., Cherry Hill; Age 65 Joseph M. DeLuca, M.D., Merchantville; Age 68 Anthony J. Repici, M.D., Haddonfield; Age 68

Essex County

Gerald J. Booken, M.D., Irvington; Age 70 Charles H. Cornish, M.D., Maplewood; Age 76 James F. Flanagan, M.D., Maplewood; Age 69 Irwin Kimche, M.D., Delray Beach, FL (formerly of Millburn); Age 70

Murray Levin, M.D., West Orange; Age 72 Nicholas A. Maggio, M.D., Newark; Age 68 Hillard Mann, M.D., Belleville; Age 62 John McKernan, M.D., Livingston; Age 56 Leonard J. Pellecchia, M.D., Bloomfield; Age 68 Irvin E. Sadoff, M.D., East Orange; Age 70 Francis R. Sandford, M.D., Caldwell; Age 69 Joseph A. Santangelo, M.D., Verona; Age 66 Anthony M. Sellitto, M.D., South Orange; Age 74 Constantino Spata, M.D., Irvington; Age 60

Gloucester County

Maskell B. Black, M.D., Glassboro; Age 76 A. Guy Campo, M.D., Westville; Age 73

Hudson County

Harold B. Bieber, M.D., Jersey City; Age 66 William T. Fifer, M.D., Bayonne; Age 80 Joseph N. Grubowski, M.D., Jersey City; Age 70 Harold Sussman, M.D., Hoboken; Age 71 Reuben Yontef, M.D., Bayonne; Age 70

Mercer County

Bertram M. Bernstein, M.D., Trenton; Age 67 David Eckstein, M.D., Trenton; Age 70 Willard G. Rainey, M.D., Princeton; Age 84 Rodney C. Turner, M.D., Haven Beach; Age 65

Middlesex County

Xavier B. Budnicki, M.D., Edison; Age 62 Joseph L. Ecker, M.D., New Brunswick; Age 66 John Y. Ma, M.D., Vero Beach, FL (formerly of Fords); Age 63 Leon Martin, M.D., Boca Raton, FL (formerly of Edison); Age 78 Matthew F. Urbanski, M.D., Perth Amboy; Age 90

Monmouth County

Avrohm Jacobson, M.D., Ocean; Age 63

Morris County

Joseph A. Alcaro, M.D., Gettysburg, PA (formerly of Morristown); Age 72

Sam C. Atkinson, M.D., Hilton Head Island, SC (formerly of Summit); Age 67

John F. Butterworth, M.D., Savannah, GA (formerly of Morristown); Age 56

Frank F. DiTraglia, M.D., Cranbury; Age 65 Herbert J. Rosen, M.D., Ironia; Age 62 John S. Thompson, M.D., Middlebury, VT (formerly of Mor-

Ocean County

ristown); Age 59

Sidney Alpert, M.D., Lakewood; Age 65 Eli A. Baruch, M.D., Toms River; Age 56 Joseph S. Berman, M.D., Toms River; Age 67 H. Irving Dunn, M.D., Mantoloking; Age 74 Harland C. Essertier, M.D., Bay Head; Age 66 Ira J. Holzman, M.D., Toms River; Age 65 Jacob K. Leir, M.D., Bricktown; Age 81 Gene B. Mauceri, M.D., Whiting; Age 68

Warren County

Nathan I. Kantor, M.D., Indian Harbor Beach, FL (formerly of Phillipsburg); Age 63

The Reference Committee noted that Katherine West, M.D., of Bergen County died on February 24, 1982.

The Reference Committee recommends that the nominations be approved.

HOUSE ACTION: Approved.

Supplemental Report #1

(Reference Committee "B")

The following additional nominations for election to emeritus membership have been received:

Atlantic County

Irving E. Braverman, M.D., Tuckahoe; Age 71

Burlington County

R. Winfield Betts, M.D., Medford; Age 72

Essex County

Walter J. Van Ness, M.D., Bloomfield; Age 66

Hunterdon County

C. Buckman Katzenbach, M.D., Hopewell; Age 70

Passaic County

Joseph A. Adamick, M.D., Montagne; Age 67 Alphonse Brancone, M.D., Paterson; Age 69 Victor F. Desmet, M.D., Paterson; Age 78 A. Frederick Shpetner, M.D., Fair Lawn; Age 67 Wolfgang F. Vogel, M.D., Totowa; Age 75 Helga E. Vogel, M.D., Totowa; Age 73 William L. Weintraub, M.D., Fort Lee; Age 80

Salem County

Charles E. Gilpatrick, M.D., Carney's Point; Age 62

Somerset County

Edwin D. Merrill, M.D., Owls Head, ME (formerly Princeton); Age 68

Union County

E. Wallace Friedlander, M.D., Coconut Creek, FL (formerly South Plainfield); Age 73 William K. Goodspeed, M.D., Little Silver; Age 68 Sydney H. Kane, M.D., Warren; Age 65 William L. Rumsey, M.D., Elizabeth; Age 70 John V. Triolo, M.D., Summit; Age 66

Warren County

Frank Bartolini, M.D., Washington; Age 70

The Reference Committee recommends that the nominations be approved.

HOUSE ACTION: Approved.

Supplemental Report #2

(Reference Committee "B")

The following nomination for election to emeritus membership has been received:

Essex County

Stephen I. Rozsa, M.D., Verona; Age 76

The Reference Committee recommends that the nomination be approved.

HOUSE ACTION: Approved.

Supplemental Report #3

(Reference Committee "B")

The following additional nominations for election to emeritus membership have been received:

Atlantic County

Joseph G. Stella, M.D., Ventnor City; Age 62

Cumberland County

Marvin N. Solomon, M.D., Vineland; Age 70

The Reference Committee recommends that the nominations be approved.

HOUSE ACTION: Approved.

Board of Trustees' Item

Joseph Peyser, M.D., Hillside; Age 59

MEMBERSHIP RECRUITMENT PROGRAM

(Reference Committee "B")

Augustus L. Baker, Jr., M.D., was named Coordinator of a program approved by the Board of Trustees to implement the mandate of Resolution #20—Mandatory Membership in the AMA, calling for the Medical Society of New Jersey to pursue every other means of increasing membership in the AMA through the activities of its regular committees.

Letters were addressed to the chief or president of the medical staff of 118 acute care hospitals in New Jersey, informing them that the Medical Society of New Jersey was interested in establishing an active and effective liaison, and requesting the opportunity to have a member of the Board or a member of the AMA Delegation address the staff at a quarterly meeting. Fifty-seven responses were received and, to date, 39 hospitals have been visited.

The Reference Committee recommends that the report be filed

HOUSE ACTION: Filed.

Resolutions

#15

Introduced by: Essex County Medical Society
Subject: Simplify Credential Procedures
Referred to: Reference Committee "B"

Whereas, the American Medical Association now is recommending that all state and county medical societies simplify their credential procedures to facilitate the application of new members; and

Whereas, AMA computer printouts now supply the applicant's biographical data including degrees and qualifications; and

Whereas, the time has come to streamline the state and county procedures and application to shorten the time it takes to become a member and make it less burdensome to apply for membership; and

Whereas, the Society now is using a lengthy, two-page application which requires typing and the signatures of two endorsers; now therefore be it

Resolved, that the Medical Society of New Jersey reevaluate its two-page application with the object of having all data that a physician completes on a 4" x 6" file card containing information suggested by the AMA on its new application; and be it further

Resolved, that the Medical Society of New Jersey's credential procedures be reevaluated to facilitate an applicant's quick acceptance.

The Reference Committee noted that the current credential procedures have not been a problem for the majority of counties. The information gained is valuable to the Society in evaluating eligibility for membership in the Society and always is not available for the AMA. The Committee noted that adoption of another procedure probably would not increase the number of applications received.

The Reference Committee **recommends** that Resolution #15 be rejected.

HOUSE ACTION: Rejected in accordance with the recommendation of the Reference Committee.

#17

Introduced by: Bergen County Medical Society

Subject: Requiring All County Medical Societies To Include in Their Annual Billing Membership for JEMPAC

Referred to: Reference Committee "B"

Whereas, the Board of Trustees has recognized JEMPAC (New Jersey Medical Political Action Committee) as being responsible for the development of the New Jersey medical profession into an effective political force at the state and federal levels; and

Whereas, JEMPAC has as its goals: (1) the improvement of government by encouraging physicians and others to take an active and effective part in government affairs; (2) to encourage physicians and others to understand the nature and actions of governing as to important political issues; and (3) to assist physicians and others in organizing themselves for more effective political action; and

Whereas, JEMPAC attempts to achieve these goals through programs of political education and fiscal contributions to candidates for state and federal office; and

Whereas, financial contributions to candidates enhance the viability of an effective political action committee; and Whereas, JEMPAC membership contributions are used solely for candidate support; now therefore be it

Resolved, that county medical societies include in their annual billing, membership for JEMPAC. Contributions would be part of the entire county society annual billing sheet with JEMPAC membership requiring a separate personal check. County medical societies would forward contributions to the JEMPAC office for acknowledgement and bookkeeping.

The Reference Committee suggests that cooperation between JEMPAC and county medical societies be encouraged whereby JEMPAC could forward to the counties either their promotional literature or flyers for distribution with their dues billings.

The Reference Committee **recommends** that Resolution #17 be rejected.

HOUSE ACTION: Rejection overridden. Resolution #17 was adopted.

REFERENCE COMMITTEE "C"

Reports:
NEW JERSEY STATE MEDICAL
UNDERWRITERS, INC.
COUNCIL ON MEDICAL SERVICES
BOARD OF TRUSTEES' ITEMS
RESOLUTIONS #9, #10, #16, #23, #24E, #25E

Members:
Donald J. Holtzman, M.D., Chairman, Union
John E. Durst, M.D., Monmouth
Louis G. Fares, M.D., Mercer
Jeffrey M. Solomon, M.D., Cumberland
James H. Spillane, M.D., Warren
George T. Hare, M.D., Alternate, Camden

New Jersey State Medical Underwriters, Inc.

Vincent A. Maressa, Secretary/Treasurer, Lawrenceville

(Reference Committee "C")

The professional liability program, administered by the Underwriter, insures more than 6,000 New Jersey physicians. The market in New Jersey is becoming competitive, with the Health Care Insurance Exchange actively seeking to write physicians on a claims-made basis and through a subsidiary is offering what is described as an occurrence plus policy. I am not clear at this point what exactly that coverage concept is and how it might differ from a roll-over, claims-made concept. I can only suggest that you read the offering materials and policy form carefully. St. Paul will be writing shortly on a claims-made basis and the New Jersey Reinsurance Association continues to offer occurrence coverage. The Underwriter is working with the Society to develop a package of concepts for legislative consideration. We are, also, in the process of testing a computerized data file. The claims data software has been marketed to two other carriers and, hopefully, will be sold to additional physician-managed companies.

Major developments this year included the discontinuance of surplus collection, the declaration of a 20 percent premium dividend for the 1977 policy year, the addition of an excess limits policy, and the offering of a retroactive increased limits coverage. These items are discussed in greater detail in the Annual Report of the Medical Inter-Insurance Exchange.

The Underwriter will be devoting considerable attention to risk management as a joint venture with the Medical Society of New Jersey.

There was some discussion regarding cessation of surplus funds and the return of the surplus funds. Also, there was some discussion regarding the tax status of the surplus which, to date, is not clear.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Council on Medical Services

Victor H. Boogdanian, M.D., Chairman, New Brunswick

(Reference Committee "C")

The Council is charged with the responsibility of studying and evaluating matters relevant to maintenance and advancement of the standards and character of medical practice in New Jersey and the investigation of the economic and social aspects of medical care.

PROPOSED REVISIONS TO THE ACCREDITATION MANUAL FOR HOSPITALS

The Council reviewed the request received from the Joint Commission on Accreditation of Hospitals to comment on the proposed revisions to chapters from the Accreditation Manual for Hospitals. Attention was directed primarily toward the contents of the standards and standards of the survey process. The following sectors were studied: Medical Staff; Governing Body Management and Administrative Services; Nursing Services; Medical Records; and Quality

and Appropriateness Review. The Council recommended and the Board of Trustees approved that the proposed revisions to chapters from the *Accreditation Manual for Hospitals*, presented by the Joint Commission on Accreditation of Hospitals on August 18, 1981, be accepted.

PHARMACEUTICAL ASSISTANCE TO THE AGED PROGRAM

The Council considered a referral pertaining to the Pharmaceutical Assistance to the Aged Advisory Council. It was noted that a need exists for some type of educational program for patients, physicians, and pharmacists who participate in the program. The Council agreed to support the Pharmaceutical Assistance to the Aged Advisory Council in its effort to establish an educational program for physicians.

cians and patients and to publicize it in the *Membership Newsletter* and *The Journal*. The Council also recommended that the county medical societies invite members of local pharmaceutical associations as speakers on the subject.

BOARD OF TRUSTEES' REFERRAL—MEDICAID REGULATIONS—SAME-DAY SURGERY

The Council reviewed the proposal of the Commissioner of Human Services to amend the Manual for Hospital and Special Hospital Services concerning same-day surgery for Medicaid patients. After careful consideration, the Council agreed that the publication of a list of same-day surgery procedures and restrictive rules by paying parties be denounced, and that same-day surgery be performed only at the discretion of the surgeon.

BOARD OF TRUSTEES' REFERRAL—HOUSE OF DELEGATES' RESOLUTION #18—FIVE-DIGIT PROCEDURE CODING

The 1981 House of Delegates referred Resolution #18 (Five-Digit Procedure Coding) to the Board of Trustees. The resolution subsequently was referred to the Council on Medical Services for study and report.

It was noted that the ICD-9-CM is a superior code for diagnoses, but it is not as flexible for procedures as the CPT-4, which is a five-digit coding system. The five-digit code now is being adopted across the country by Blue Cross and Blue Shield and is being recommended to all private insurance companies. The Council recommended and the Board of Trustees approved the endorsement of the use of the CPT-4 coding system.

BOARD OF TRUSTEES' REFERRAL—HOUSE OF DELEGATES RESOLUTION #30—DUAL FEE SYSTEM

The 1981 House of Delegates referred Resolution #30 (Dual Fee System) to the Board of Trustees, who in turn referred it to the Council for study and report. The Council has had two meetings on this topic and will review its findings at a meeting to be held on March 31, 1982. This report will be forthcoming.

MEDICAL GUIDELINES FOR WORKMEN'S COMPENSATION

The Council also approved the Medical Guidelines as presented by the Committee on Occupational Health, Workmen's Compensation, and Rehabilitation. The Committee reviewed the definitions of impairment and disability as given in the Guides to the Evaluation of Permanent Impairment published by the AMA. The Committee agreed and the Board of Trustees approved that the AMA Guides, published in 1971, be reaffirmed as a guide for physicians involved in determining degrees of impairment in workmen's compensation cases where possible.

BOARD OF TRUSTEES' REFERRAL—HOUSE OF DELEGATES' RESOLUTION #3—BLUE CROSS COVERAGE FOR REHABILITATION TREATMENT

The 1981 House of Delegates referred Resolution #3 (Blue Cross Coverage for Rehabilitation Treatment) to the Board of Trustees for the identification of problems and for the determination of the need for the resolution. The Board, in turn, referred the Resolution to the Council on Medical Services for investigation and report.

The Council reviewed the Resolution, having full discussion with input from Blue Cross, New Jersey Society of Physical Medicine and Rehabilitation, and others. The Council and the Board of Trustees agreed on presentation of the following to the 1982 House of Delegates for consideration:

RECOMMENDATION

That the Medical Society of New Jersey advocate and support necessary changes in Blue Cross, Blue Shield, and Major Medical contracts to make possible adequate coverage for rehabilitation treatment of patients requiring such services.

That the present, unrealistic \$50-a-year limit for rehabilitation treatment be changed so that rehabilitation treatment may be received on an outpatient basis whenever feasible and indicated, thereby avoiding expensive and extended hospitalizations.

Strong support was given to the concept that no list of same-day surgery procedures be filed and that same-day surgery be performed only at the discretion of the surgeon.

Support was given to the concept of the CPT-4 coding system, but there are economic problems making its adoption difficult at present.

The Reference Committee recommends that the recommendation be approved.

HOUSE ACTION: Approved.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Supplemental Report #1

(Reference Committee "C")

The following items contained in the March 31, 1982, report of the Council were presented to the Board of Trustees and approved at its meeting on April 18, 1982.

COMMITTEE ON OCCUPATIONAL HEALTH, WORKMEN'S COMPENSATION, AND REHABILITATION

The Council recommended that the name of the Committee be changed to read the Committee on Occupational Health, Worker's Compensation, and Rehabilitation.

BOARD OF TRUSTEES' REFERRAL—HOUSE OF DELEGATES RESOLUTION #30 (1981)—DUAL FEE SYSTEM

The Council reviewed all available information and received statements from the New Jersey Academy of Family Physicians, the New Jersey Society of Internal Medicine, Doctor Christopher Babigian (author of the resolution), New Jersey Blue Shield, Prudential Insurance Company regarding Medicare reimbursement, and the New Jersey Division of Medical Assistance and Health Services regarding Medicaid reimbursement.

Doctor Salvatore Dallio, President of the New Jersey Academy of Family Physicians, reported that the Academy supports the concept of physicians being reimbursed for services rendered.

The New Jersey Society of Internal Medicine supports the fee-for-service concept as well as payment for services on the

basis of reasonable and customary charges. Medicare statutorily has provided for a higher reimbursement fee on the basis of specialty designation because specialists do charge higher rates, thus allowing patients to avail themselves of those services. Blue Shield has compensated physicians on the basis of procedures and only recently has begun to consider this issue in a different perspective. New Jersey Blue Shield has not had a dual system in their basic low option but does allow a higher reimbursement under the high option plan on the UCR Schedule. CPT-4 being accepted by thirdparty payers may have oversimplified the issue by assuming similar services by one physician might be identical to that of another. A number of national studies have documented that similar services rendered by family physicians are not identical to those rendered by internists or pediatricians. The Society of Internal Medicine feels, however, that the Medical Society of New Jersey, consisting of both specialists and nonspecialists, cannot pit one group against the other in supporting this resolution. They feel that the Medical Society of New Jersey should support fee-for-services or contractual arrangements by physicians for fees-for-services, to recognize reasonable and customary charges; continue to accept specialty profiling; and support cognitive skill recognition in fee structures. The New Jersey Society of Internal Medicine suggested that the Council recommend that this resolution cannot be implemented by the Medical Society of New Jersey.

The Council recommends that the following resolution be adopted as a substitute for Resolution #30 (1981):

RECOMMENDATION

Resolved, that the Medical Society of New Jersey recognizes that a given service may be enhanced significantly in value by cognitive input which derives from specialty training and/or specialty practice; and

Resolved, that the Medical Society of New Jersey recognizes the right of the individual physician to set his own fee schedule; and

Resolved, that the Medical Society of New Jersey supports the patient's right to adequate and fair insurance coverage for medical services rendered; and be it further

Resolved, that the Medical Society of New Jersey supports the concept of equal third-party reimbursement for equal services rendered.

Considerable discussion took place pertaining to the four resolveds. However, it was felt that the Medical Society of New Jersey does represent physicians in many varieties of practice and that all four resolveds should be adopted.

The Reference Committee recommends that the recommendation be approved.

HOUSE ACTION: Adopted as amended.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Board of Trustees' Items

MEMBERSHIP INSURANCE PROGRAMS

(Reference Committee "C")

Upon the recommendation of the Committee on Medical Defense and Insurance, the following recommendations were approved by the Board of Trustees:

- Group Term Life Insurance Plan. That the Medical Society of New Jersey offer its membership a Group Term Life Insurance Plan underwritten by the Hartford Life Insurance Company, as submitted by Donald F. Smith & Associates.
- 2. Dental Insurance Program. That the Medical Society of New Jersey offer its membership a Dental Insurance Program underwritten by Blue Shield of New Jersey, as submitted by Donald F. Smith & Associates.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

MODIFICATION OF THE MEDICAID PROGRAM

(Reference Committee "C")

At the close of the 1981 Annual Meeting, letters were forwarded to the Governor, the State Legislature, and others recommending that the state Medicaid program be modified so as to provide usual and customary fees to physicians for services rendered.

The Commissioner of the Department of Human Services has acknowledged receipt of the communication noting the following:

The Department has addressed the problem of physicians' fees under the Medicaid program in the past and continues to do so by requesting increases in its budget. Unfortunately, however, these efforts, to date, have not been successful.

In addition, the Department, in consultation with the Medical Society, has proposed a major revision in the structure of Physician Procedure Codes and fee allocations that will make it much easier for physicians to participate in the Medicaid program in the future. The basic changes for this purpose have been made in the physician office visit areas and are scheduled to be implemented shortly.

Beginning July 1, 1981, a new Physician's Claim Form was available for use in both the Medicaid and Medicare programs. This form, known as HCFA-1500, eliminated the use of the two separate claim forms that previously were used.

The Department is most interested in improving the climate for physician participation in the Medicaid program and will continue to pursue this objective in the future. However, one of the most difficult issues is the petitioning of the Legislature for a direct increase in the Medicaid budget specifically for physician fees. This is a most difficult issue in normal times and becomes even more difficult at this time in

which there is a certainty of a decrease in funds that will be available to the Medicaid program at the federal level.

The Reference Committee recommends that the report be filed

HOUSE ACTION: Filed.

PRIMARY CARE PILOT PROJECT FOR MEDICAID ELIGIBLES

(Reference Committee"C")

The Society has been advised by the Administrator of the Health Care Financing Administration of the United States Department of Health and Human Services that they have not approved the primary care pilot project as submitted by the New Jersey Division of Medical Assistance. They have suggested that an application be made for waivers under the Omnibus Reconciliation Act of 1981.

The purpose of the project was to bring the Medicaid patient into the mainstream of care and to decrease the need for hospitalization and expensive hospital services.

Since the membership is interested keenly in this concept, the Board urged the Director of the New Jersey Department of Medical Assistance and Health Services to proceed promptly with either state-wide implementation or pilot project study.

The Reference Committee **recommends** that the report be

HOUSE ACTION: Filed.

Supplemental Report #1

COMMITTEE ON MEDICAID

(Reference Committee "C")

Medicaid Second Surgical Opinion Program

The New Jersey Medicaid Program is instituting a mandatory Second Opinion Program for certain elective surgical procedures. The procedures affected include hysterectomy, cholecystectomy, tonsillectomy and/or adenoidectomy, heria repair, laminectomy, and spinal fusion. The fee agreed upon for second opinions is \$50.

RECOMMENDATION

That the Medical Society of New Jersey cooperate in the Second Surgical Opinion Program as presented by the Division of Medical Assistance and Health Services, with the understanding that this program be reviewed at a definite time after its effective date to evaluate its cost effectiveness and to determine whether or not the program should be continued.

The recommendation was approved by the Board.

Drug Products and Known Related Drug Products that Lack Substantial Evidence of Effectiveness

As of December 3, 1981, the Division of Medical Assistance and Health Services will cease reimbursement for all drugs that the Food and Drug Administration (FDA) has proposed to withdraw from the market. The Committee agreed that the information should be called to the attention of the membership through the Society's Newsletter.

The Committee is of the opinion that the ruling will be a detriment to the many Medicaid patients who derive benefits from the drugs. The drug companies never will attempt to prove the effectiveness of the drugs because the ruling only

affects prescriptions to Medicaid patients and does not represent a large portion of their sales volume.

RECOMMENDATION

That the Medical Society of New Jersey advise the Division of Medical Assistance and Health Services, New Jersey Department of Human Services that it strongly objects to the cessation of reimbursement under the Medicaid program for drugs that the Federal Food and Drug Administration has determined to lack substantial evidence of effectiveness, as listed in the New Jersey Health Services Program Newsletter, dated November 23, 1981.

The recommendation was approved by the Board.

Regarding the Medicaid Second Surgical Opinion Program, there was discussion on the discrepancy between the fee allowed by Medicaid for the initial opinion and the fee allowed for the second opinion. It clearly discriminates against the primary physician. This disturbed many physicians. The Committee was told that Medicaid is aware of the problem. As suggested in the recommendation, the Committee recommends that a timely review of the program with appropriate reporting be undertaken.

The Reference Committee recommends that the report be filed

HOUSE ACTION: Filed.

Supplemental Report #2

COMPREHENSIVE LEGAL SERVICES PLAN FOR PHYSICIANS RESOLUTION #23 (1981)

(Reference Committee "C")

The 1981 House of Delegates adopted a resolution calling for the expansion of the current Legal Services Plan to incorporate defense of formal complaints by the State Board of Medical Examiners and review in the Appellate Division. The resolution was referred to the Committee on Medical Defense and Insurance for further study.

In order to accomplish the mandate of the House of Delegates, the Committee currently has several approaches under consideration. The Board of Trustees supported a recommendation submitted by the Committee on Medical Defense and Insurance calling for postponement of any further action on the resolution until a survey of the membership can be made to determine if there is sufficient interest in the program.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

HEALTH AND ACCIDENT PROTECTION—DISABILITY INCOME AND OVERHEAD EXPENSE PROTECTION

(Reference Committee "C")

Upon the recommendation of the Committee on Medical Defense and Insurance, the Board of Trustees agreed to offer to the membership a Health and Accident Protection—Disability Income Program underwritten by the Federal Home Life Insurance Company and the Overhead Expense Protection Program underwritten by CNA Insurance as proposed by International Underwriters.

The Reference Committee recommends that the report be filed

HOUSE ACTION: Filed.

Resolutions

#9

Introduced by: Passaic County Medical Society

Program To Publish a Periodical for Members of Hospital Governing Boards Subject: Referred to:

Reference Committee "C"

Whereas, hospitals have initiated services which intrude into the private practice of medicine and are continuing their marketing activities to identify further areas for competition with individual doctors; and

Whereas, the governing boards of hospitals make the final decisions as to which activities a hospital undertakes; and

Whereas, the members of hospital governing boards rely on the information and guidance provided them by individual hospital administrators and the American Hospital Association's publication, Trustee; and

Whereas, ongoing input to the members of hospital governing boards by practicing physicians is often lacking or, at best, minimal; now therefore be it

Resolved, that the Medical Society of New Jersey undertake a program to publish, on a regular basis, a periodical for members of hospital governing boards in New Jersey to acquaint such persons with the views of organized medicine related to the delivery of medical services and health care in New Jersey.

The Committee agrees with the content and concept of Resolution #9. It was felt that the word "periodical" can be any type of simple brochure, newsletter, or similar informational bulletin that can put the message across clearly. One matter specifically raised was the funding of the program. The Committee wishes the bulletin to be effective and reasonable. Since this problem is nationwide, the question of potential AMA involvement also was discussed.

The Reference Committee recommends that Resolution #9 be adopted.

HOUSE ACTION: Adopted.

#10

Introduced by: Monmouth County Medical Society

Subject: Compensation for Services Rendered by a Pathologist

Referred to: Reference Committee "C"

Whereas, pathology is a long-recognized and well-respected specialty within medicine and surgery; and

Whereas, physicians who limit their practice to pathology are dedicated to the delivery of quality care to the public; now therefore be it

Resolved, that the Medical Society of New Jersey reaffirm the principle that the pathologist, as a practicing physician, may be compensated for his services in the same fashion as any other physician, i.e. fee-for-service, salaried, or any other acceptable arrangement.

There was general support for Resolution #10, particularly for the concept of the option of a fee-for-service basis for reimbursement for pathologists.

The Reference Committee recommends that Resolution #10 be adopted.

HOUSE ACTION: Adopted.

#16

Subject:

Introduced by: Essex County Medical Society

Medical Society of New Jersey Administer Blue Cross/Blue Shield Program

Reference Committee "C" Referred to:

Whereas, the Medical Society of New Jersey is in the process of establishing its own computer program that will be capable of being utilized for many different purposes and many different billings; and

Whereas, the cost of administering the Blue Cross and Blue Shield programs for the members of the Medical Society of New Jersey could be reduced through the use of an in-house computerized billing system; now therefore be it

Resolved, that the Medical Society of New Jersey take appropriate steps to assume the administration of the Blue Cross/Blue Shield program.

Members initially were angered by the offering of other malpractice insurance to the members of the Medical Society of New Jersey by Donald F. Smith & Associates, our broker for Blue Cross/Blue Shield and Major Medical. The reality of the situation, however, is that the administration fee is reasonable and that the Medical Society of New Jersey presently is not able to assume administration of the program.

The Reference Committee **recommends** that Resolution #16 be rejected.

HOUSE ACTION: Rejected in accordance with the recommendation of the Reference Committee.

#23

Introduced by: Passaic County Medical Society
Subject: PSROs To Review Medicaid Cases
Referred to: Reference Committee "C"

Whereas, the PSRO review system in this state, over time, has demonstrated its capacity to perform timely and effective review of acute care: and

Whereas, this review mechanism is physician directed and patient-care oriented; and

Whereas, this review mechanism has managed to achieve recognition by the New Jersey Department of Health for all acute care patients under the DRG program; now therefore be it

Resolved, that the Medical Society of New Jersey petition the Division of Medical Assistance and Health Services to reverse its stand regarding fully nondelegated status as a condition to allowing the state's PSROs to conduct a review of Medicaid cases and to insist on reversion to the present system of local PSRO determination as to delegation or nondelegation.

The Committee notes that it was difficult to interpret the resolved; in general, the concept was supported and it was felt that the PSRO review system should not be discriminatory.

The Reference Committee **recommends** that **Resolution** #23 be adopted.

HOUSE ACTION: Not Adopted.

#24E

Introduced by: Passaic County Medical Society

Subject: Discontinuance of Federal Funding of Ambulatory Care Centers

Referred to: Reference Committee "C"

Whereas, cost containment in the provision of medical services and health care has emerged as a major national priority; and

Whereas, the Reagan Administration is encouraging competition among providers to accomplish cost containment;

Whereas, hospitals that are tax-exempt organizations are moving aggressively into competition with private practitioners; and

Whereas, such competitive encroachments by hospitals often are subsidized by funds provided by federal, state, and local governments from tax revenues; and

Whereas, private practitioners who are taxpaying citizens thereby must help to subsidize such competitors who receive government grants funded by private practitioners' taxes; now therefore be it

Resolved, that the Medical Society of New Jersey pursue every available means to halt the unfair advantage given to hospitals in the form of government funds by seeking the disallowance of such activities that currently are under consideration, and by seeking the termination of funds tothose activities already in existence; and be it further

Resolved, that the Medical Society of New Jersey enlist the aid of the American Medical Association to halt such unfair competition practices.

There was considerable discussion regarding Resolution #24E and it received support for its concept.

The Reference Committee **recommends** that the following Substitute Resolution be adopted:

Resolved, that the Medical Society of New Jersey pursue a policy to halt the unfair advantage given to hospitals in the form of government funding of hospital-affiliated ambulatory health care centers that are not involved directly in family practice residency teaching programs; and be it further

Resolved, that the Medical Society of New Jersey enlist the aid of the American Medical Association to halt any unfair competition that infringes on the private practice of medicine.

HOUSE ACTION: Adopted.

#25E

Introduced by: Alfred R. Dardis, M.D., Delegate, Essex County

Subject: Family Practice Centers
Referred to: Reference Committee "C"

Whereas, family practice has been a recognized specialty since 1968; and

Whereas, this recognition came as a result of extensive deliberations of nationally noted medical organizations, most importantly the AMA; and

Whereas, the training of physicians in any of the specialties requires that training be undertaken within a program approved by the Accreditation Council of Graduate Medical Education; and

Whereas, a significant portion of the training of the family physician is required to take place in a model family practice center; and

Whereas, that model family practice center must be acceptable to the residency review committee in location, facilities, and practice population; now therefore be it

Resolved, that the model family practice center of an approved family practice residency training program specifically be distinguished by the Medical Society of New Jersey from other areas of ambulatory health care delivery, be it a hospital outpatient facility, an emergency medical facility, a hospital satellite ambulatory care facility, or a clinic of a health maintenance organization; and be it further

Resolved, that the Medical Society of New Jersey continue its strong support of approved family practice residency training programs as they function within the general ac-

creditation and special requirements of the Accreditation Council for Graduate Medical Education as composed by the American Board of Medical Specialties, the American Hospital Association, the Association of American Medical Colleges, the Council on Medical Specialty Societies, and the American Medical Association and that these training programs should have the support of the appropriate county medical society.

There was considerable discussion regarding Resolution #25E. It drew strong support since the concept was felt to be the endorsement of good family practice residency training.

The Reference Committee recommends that the following words in the first resolved be deleted: "be it a hospital outpatient facility, an emergency medical facility, a hospital satellite ambulatory care facility, or a clinic of a health maintenance organization."

The Reference Committee recommends that the following words in the second resolved be deleted: "as composed by the American Board of Medical Specialties, the American Hospital Association, the Association of American Medical Colleges, the Council on Medical Specialty Societies, and the American Medical Association."

The Reference Committee **recommends** that Resolution #25E be adopted as amended.

HOUSE ACTION: Adopted as amended.

REFERENCE COMMITTEE "D"

Reports:
COUNCIL ON LEGISLATION
COUNCIL ON PUBLIC RELATIONS
BOARD OF TRUSTEES' ITEMS
RESOLUTIONS #1, #22

Members:

Frank J. Primich, M.D., Chairman, Hudson Joseph P. Cillo, M.D., Union Joseph W. Fleisher, M.D., Hudson Joseph A. Furey, M.D., Cape May Paul H. Steel, M.D., Atlantic Antonio P. Bataglia, M.D., Alternate, Gloucester

Council on Legislation

Daniel J. O'Regan, M.D., Chairman, Jersey City

(Reference Committee "D")

This report presents a summary of the ultimate status of legislative measures of primary concern during the Second Annual Session of the 199th Legislature. The Council's operations, together with a cumulative report of MSNJ's official positions on current legislation, are reflected regularly in the official bulletins dispatched to State Legislative Keymen and to component societies, and in items published in the Membership Newsletter and The Journal. The minutes of the meetings of the Board of Trustees include full reports of the Council's actions taken in regular meetings.

The Council on Legislation continues its established policy of inviting an official representative from each specialty society to all Council meetings. A notice announcing the date of each of the Council's meetings also is sent to all MSNJ Official Intermediaries with New Jersey specialty societies.

The Council urges more representatives to attend its meetings so that it may have the benefit of the timely thinking of specialty societies concerning proposed legislation affecting the specialty fields.

The Council on Legislation agreed, in order to fortify our stand on legislative bills and make our position known throughout the Society, that it be a standing policy to invite the Chairman of each Council and Standing Committee to attend the legislative meetings and to give them the right, if they cannot attend, to select a representative.

This year (1981), a *Bylaw Amendment* makes it possible for one Auxiliary member to be appointed, by the President, to serve on the administrative councils and committees for a one-year term to be full voting members of the respective councils and committees.

Of the bills reported to the House from the 199th Legislature, the following were signed into law:

ACTIVE SUPPORT

S-1390 —Permits the Medical Society of New Jersey to decide whether or not to extend representation within the House of Delegates to specialty societies.

S-1557 —Increases medical witness fees under workmen's compensation to \$250.00 maximum per individual and \$750.00 in aggregate.

APPROVED

S-1179 —Requires the State Department of Health to establish screening programs to locate, diagnose, and refer to proper treatment those who adversely were exposed to DES. The State Department of Health is to file a report with the Legislature one year from the enactment of this legislation.

- S-1232 —Amends existing law to allow licensees in certain allied fields to be shareholders in professional service corporations with more broadly licensed individuals, i.e. physicians and dentists.
- S-1358 —Extends the benefits of the cystic fibrosis program under the crippled children's program to adults with that disease.
- A-923 —Amends existing law to permit patients to possess a tenday supply of a controlled dangerous substance in a container other than the original, provided the patient carries with him a writing provided by his physician detailing: the name and address of the dispensing practitioner; the prescription record identification number; the name, address, and registration number of the prescriber; the name of the substance; and the directions for its use.
- A-1725 Prohibits smoking in all health care facilities except for:
 1. Private rooms or rooms where all patients consent to smoking.
 - Waiting rooms or lobby if there is more than one. If not, smoking is permitted as long as there is adequate sectionalization.
 - 3. Cafeteria with a capacity of 50 or more, as long as a nonsmoking section is designated.
 - Smoking is prohibited in the waiting rooms of private practitioners, unless there is more than one waiting room.
- A-1726 —Requires schools, colleges, universities, or professional schools to regulate smoking in their building complexes and to permit smoking only in certain designated areas.

ACTIVE OPPOSITION

S-3090 —Alters the licensure requirements for laboratory directors and would permit endorsement grants of specialty license when the applicant has been certified by a national agency. While the license ("specialty license") is issued by the State Board of Medical Examiners, recognition of the national certificating association would be through the Commissioner of Health.

Applicants eligible for this endorsement, if this amendment is not enacted, would be required to complete successfully the current New Jersey examination.

The following bills of medical interest were introduced in the 1981 Legislature, but too late to be reported to the 1981 House of Delegates:

S-1293 Feldman — Licensing of Speech Therapists and Audiologists Creates a direct licensing system within the Division of Consumer Affairs for speech therapists and audiologists. Continuing education is mandated. The individuals so licensed would function independently. Physicians and their employees are exempt under the Act as long as the employee is not termed a "speech therapist or audiologist." ACTIVE OPPOSITION, because while audiologists.

by training and experience, technically are competent individuals, they are not qualified to make judgmental decisions or to engage in clinical diagnosis. Granting licensure to those individuals would be a disservice to the public and would, indeed, produce increased costs for those services which they currently provide.

S-3174 Skevin — Discrimination

Prohibits discrimination against cancer victims by redefining "handicapped" to include those with health impairments caused by the pathological condition of cancer. ACTIVE OPPOSITION, singling out cancer is discriminatory, superfluous, and self-defeating. Functional disabilities, due to cancer, as well as other diagnoses, already qualify under existing law.

S-3202 Russo — Personal Injury

Would preclude governmental agencies from attaching that portion of awards or settlements to infants for personal injuries which is attributable to making the child "whole." NO ACTION.

S-3208 Laskin — Age of Majority

Restores 21 years of age as the statutory age of majority in New Jersey. NO ACTION.

S-3211 Ewing — Emergency Rooms

Provides that when a general hospital closes, a neighboring general hospital shall be permitted to maintain and operate its emergency room without a certificate of need if there is no other general hospital emergency room in the community. APPROVED.

S-3229 Ewing — Marriage Licenses

Requires females under 45 years of age who are applying for a marriage license to submit evidence of having taken an immunological response test to rubella. The physician shall inform the applicant of the medical significance of the results of the test. APPROVED.

S-3235 Lipman — Hereditary Disorders

Establishes a hereditary disorders program in New Jersey in the State Department of Health. ACTION DEFERRED, pending further information from the American College of Obstetricians and Gynecologists, New Jersey Chapter of the American Academy of Pediatrics, Council on Public Health, and Committee on Maternal and Child Care. (LAW c.502 ('81))

S-3242 Orechio — Academic Certificates (Same as A-3415)

Provides technical amendments to the licensing statutes deleting citizenship requirements. Additionally, this bill would delete the necessity for a certificate from the Department of Education. The Director of the Division of Consumer Affairs would certify the academic credentials of applicants to the various boards. AP-PROVED.

S-3255 Russo — Motor Vehicles

Provides that at the direction of the licensee the Division of Motor Vehicles shall stamp on his/her driver's license the word "diabetic." APPROVED.

S-3261 Feldman - Professional Liability

Would require plaintiffs in medical malpractice suits to file an affidavit of a practicing physician indicating there is a reasonable probability that a deviation from accepted standards occurred. The affidavit is not required if the defendant failed to provide plaintiff with medical records on a timely basis. The affidavit is waived if there is not sufficient time to file within the Statute of Limitations. The judge, in his/her discretion, on motion, may grant a summary dismissal. CONDITIONAL APPROVAL, pending amendment of bill-line #13 change word "board licensure" to "specialty board certification." If bill is amended, Active Support.

S-3315 Feldman - College of Medicine and Dentistry of New Jersey (Same as A-3525)

Changes the status of the College of Medicine and Dentistry of New Jersey to that of a university and grants it corporate and operational authority similar to Rutgers. ACTIVE SUPPORT. (LAW c.325 ('81))

S-3342 Yates - Physicians

Stipulates that the failure of a physician to inform a breast cancer patient of alternate forms of treatment constitutes professional incompetence under the Medical Practice Act. ACTIVE OPPOSI-TION, because the authority to revoke a license predicated on this type of action already is within the judgment discretion of the State Board of Medical Examiners. Also, medical judgment should not be legislated.

A-3009 Weidel - Prescription Legend Drug

Provides that stramonium preparation is to be regulated as a prescription legend drug. Makes the cultivation and production of stramonium illegal except for pharmaceutical producers. NO AC-TION.

A-3379 Dowd — Professional Liability

This bill would preclude children and their parents from asserting "wrongful birth" claims. ACTIVE SUPPORT.

A-3415 Otlowski - Academic Certificates (Same as S-3242)

Provides technical amendments to the licensing statutes deleting citizenship requirements. Additionally, this bill would delete the necessity for a certificate from the Department of Education. The Director of the Division of Consumer Affairs would certify the academic credentials of applicants to the various boards. AP-PROVED.

A-3440 Matthews — Cardiopulmonary Resuscitation

Requires CPR training for students in grades 11 and 12. CONDI-TIONAL APPROVAL, pending the inclusion of periodic updating of the techniques of CPR.

A-3444 Herman — Human Leucocyte Antigen Testing

Would admit the Human Leucocyte Antigen Blood Test into evidence to establish the positive probability of parentage. AP-PROVED.

A-3457 Karcher — Contact Lenses and Eyeglasses

Prohibits the mail order sales, dispensing, or distribution of refractive lenses to a retail buyer. APPROVED.

A-3481 Villane - Blood Donors

Would override current regulations and allow persons over 65 years of age, in good health, to act as blood donors. APPROVED. A-3487 Hurley - Renal Dialysis

Would remove the moratorium on the establishment of additional renal dialysis programs. APPROVED.

A-3525 Jackman — College of Medicine and Dentistry of New Jersey

Changes the status of the College of Medicine and Dentistry of New Jersey to that of a university and grants it corporate and operational authority similar to Rutgers. ACTIVE SUPPORT. A-3562 Brown — College of Medicine and Dentistry of New Jersey

The purpose of this bill is to place a licensed dentist on the Board of Trustees of the College of Medicine and Dentistry of New Jersey. NO ACTION.

A-3583 Bornheimer — Alcoholism Treatment Services

This bill will amend the New Jersey Medical Assistance and Health Services Act (P.L. 1968 c.413), to mandate Medicaid coverage of alcoholism treatment services which have been prescribed by a physician. Currently, Medicaid only covers alcoholism treatment services which occur at a hospital. This bill would extend coverage to detoxification centers and approved residential treatment programs. ACTION DEFERRED, pending further information from the Ad Hoc Committee on Drug and Alcohol Abuse.

The Committee felt that the Council should be commended for the Herculean task of trying to review and judge the many pieces of legislation that proliferate from Trenton. There were several comments regarding specific pieces of legislation and it seems appropriate to recommend that all members try to increase their awareness of legislation that impacts on health care and to convey any appropriate information that they may have to the Council.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Supplemental Report #1

(Reference Committee "D")

At 12 o'clock noon, Tuesday, January 12, 1982, the Senate and General Assembly met for organization of the First Annual Session of the 200th New Jersey State Legislature. As the Legislature presently is constituted, the Senate has a total of 40 members consisting of 18 Republicans and 22 Democrats. The Assembly has a total of 80 members consisting of 36 Republicans, 43 Democrats, and 1 vacancy. By means of official legislative bulletins, the Society's official legislative positions on all current state legislation regularly are called to the attention of legislators as well as component societies,

cooperating agencies, county keymen, county society executive directors, and executive secretaries.

The Society has adopted the following regular range of official positions concerning proposed legislation:

ACTIVE SUPPORT—All-out support of the measure.

ACTIVE OPPOSITION—All-out opposition for the measure.

CONDITIONAL APPROVAL—To indicate that the approval of the Society is conditional subject to the elimination of the unsatisfactory elements of the bill that are pointed out.

APPROVAL—Commended as satisfactory, but not actively supported.

DISAPPROVAL—Rejected as unsatisfactory, but not actively opposed.

N.B.

The Legislative Committee of MIIENJ and the Medical Society of New Jersey are working on a package of proposed legislation concerning medical malpractice reform which they hope to have introduced in the spring.

CURRENT STATE LEGISLATION

The Council offers this supplemental report covering items dealt with since the compilation of its Annual Report.

S-4 Weiss-Products Liability of Pharmaceutical Products

Requires all drug manufacturers in New Jersey to carry: a) products liability insurance according to minimum standards of the Insurance Commissioner; and b) provide products liability indemnity protection to each pharmacist retailing their products. CONDITIONAL APPROVAL, pending the following amendment being added to the bill: "c) provide products liability indemnity protection to each physician prescribing or dispensing their products."

S-5 Weiss—Consent to Elective Surgery

Requires physicians to secure specific written consent to elective surgical procedures that shall indicate the operating surgeon and identify any other participating physicians. The primary surgeon must be in continuous attendance unless an emergency occurs in which event his absence shall be noted in the operative record. The operative record which must be kept shall indicate the name, position, and duties of each person in attendance at such operation. This record must be available for at least one year at both the hospital and the physician's office and available for the patient's inspection and reproduction. DISAPPROVED WITH ACTIVE OPPOSITION IF BILL MOVES, because this legislation is impractical and unworkable and would negate teaching programs in New Jersey. Current recordkeeping systems are adequate.

S-32 Foran—Products Liability

Provides a six-year statute of limitations in products liability actions. Establishes rebuttable presumptions that products are free of defects. NO ACTION.

S-44 Foran-Special Education

Requires the Department of Education to provide child study teams with the capacity to evaluate hearing loss and to develop individual educational programs for children with this handicap. ACTION DEFERRED, pending further information from the New Jersey Academy of Ophthalmology and Otolaryngology, New Jersey Department of Education, and the New Jersey Department of Health concerning this problem.

S-67 Hagedorn—Involuntary Commitments

Restructures existing laws to provide that:

1. The Board of Freeholders shall designate one or more screening centers within their counties or on an intercounty basis as the Department of Human Services may approve.

The screening service shall provide examinations, diagnoses evaluation, and emergency treatment in accordance with departmen-

tal regulations.

3. Involuntary commitments are to be certified by two psychiatrists, or one psychiatrist and one licensed physician, or a psychiatrist and a psychologist.

4. The screening or commitment process is to be initiated by a sworn document signed by an immediate family member, next-of-

kin, physician, psychiatrist, county medical examiner, social worker, police official, county prosecutor, or a county or municipal welfare director.

 Screening services shall hold persons determined to be dangerous for no more than 72 hours before the involuntary commitment mechanism must be complied with.

6. Patients being admitted to screening centers or institutions have a detailed list of rights including the immediate right to counsel. ACTIVE OPPOSITION, because this legislation would not improve the present mechanism and by creating another level of service would tend to increase mental health delivery costs in New Jersey. More specifically: 1) prevents a physician and/or a psychiatrist from directly committing a patient to a psychiatric hospital; 2) creates an intermediate step between the physician's/psychiatrist's recommendation for hospitalization and actual hospitalization for definitive treatment thus creating a separate and possibly stigmatizing service for mentally ill individuals as distinct from other categories of illness, as well as delaying initiation treatment; 3) employs the concept of "dangerous" as the only determining factor for holding a patient for 72 hours before the involuntary commitment mechanism must be complied with. The concept of "dangerous" is inadequate and limiting by failure to include individuals who are a danger to themselves and who are suffering from illness requiring hospitalization. This again discriminates between mentally ill and physically ill individuals; and 4) attempts to include a nonmedical profession (psychology) to certify committable illnesses whose origins are disturbances of biological systems of the human being and whose treatment basically is medical.

S-101 Russo—Damages for Wrongful Death of Minors

This bill would allow computation of factors other than pecuniary loss in the wrongful death of minors with said damages to be limited to \$100,000. (Current case law does not recognize such a compensable event unless the estate of the minor proved actual lost wages or income-producing activity.) If enacted, this bill could have the effect of escalating personal injury liability rates. DISAP-PROVED, because only damages established by proof should be subject to award.

S-108 Russo—Amends the Juvenile Terminal Illness Assistance Act To Include Adults. APPROVED.

S-116 Russo-Physician Advertising

Permits physicians to place their names on signs or directory posts within reasonable proximity to the building wherein their office is located. APPROVED.

S-117 Russo-Good Samaritan Act

Clarifies the Good Samaritan Act to include all emergency situations regardless of location. APPROVED.

S-140 Russo-Determination of Death

Defines the determination of death to include circulatory and respiratory functions or irreversible cessation of brain functions. This proposal is in conformity with the model bill of the Commissioners on Uniform State Laws. APPROVED.

S-141 Russo—Workmen's Compensation (Free Choice of Physician) Allows injured workers to select, upon notice to their employer, their own physician or hospital for the treatment of covered injuries. APPROVED.

S-174 Hurley—Motor Vehicles

Provides for implied consent to the taking of blood and urine samples for chemical analysis to determine drug content. Samples may not be taken forcibly and against the physical resistance of the person being arrested. APPROVED.

S-208 Hurley—Renal Dialysis

Would remove the moratorium on the establishment of additional renal dialysis programs. APPROVED.

S-215 Hurley—Comparative Negligence

This would amend existing statutes in order to overcome case law which held that in the case of multiple defendants, if the plaintiff's negligence exceeded that of any one of the defendants, there would be a bar to recovery. NO ACTION.

S-227 Russo-Drug Abuse Control

Establishes an Advisory Council, within the Department of Health, to advise the Director of the Division of Narcotic and Drug Abuse Control concerning the preparation and implementation of an annual drug abuse prevention and treatment plan for New Jersey. The 17-member Council would consist of 9 citizen members appointed by the Governor and 8 ex-officio members. APPROVED. S-228 Orechio—Child Abuse

Removes the concept of "willful" from the interpretation and application of child abuse statutes. DISAPPROVED, because of the difficulty in determining abuse if the concept of "willful" is removed.

S-239 Orechio-Electrologists Licensing Act

Authorizes the State Board of Medical Examiners to license electrologists. An electrologist is "a person who professionally removes hair from apparently normal skin of the human body by electrical, electronic, or other technical, scientific methods approved by the Board." The advisory board is to consist of three electrologists and three medical doctors, preferably dermatologists. DISAPPROVED, because existing public health controls make this legislation unnecessary.

S-245 Orechio-Professional Boards

Amends the Uniform Powers and Enforcement Act to provide that charging a manifestly unconscionable fee constitutes professional misconduct, APPROVED.

S-265 Feldman-Professional Liability

Would require plaintiffs in medical malpractice suits to file an affidavit of a practicing physician indicating there is a reasonable probability that a deviation from accepted standards occurred.

The affidavit is not required if the defendant failed to provide plaintiff with medical records on a timely basis.

The affidavit is waived if there is not sufficient time to file within the statute of limitations.

The judge, in his/her discretion, on motion, may grant a summary dismissal. CONDITIONAL APPROVAL, pending amendment of bill—on line 13 change wording of "board licensure" to "specialty board certification."

S-283 Bassano-Marriage Licenses

Requires all female applicants for a marriage license, under 45 years of age, to show laboratory evidence of rubella response test as a condition precedent to the issuance of a marriage license. The physician is to inform the applicant of the medical significance of the results of the serological test. DISAPPROVED because this type of testing would serve no real purpose and would be costly.

S-287 Bassano-Determination of (Rh) Factor

Requires physicians to take a blood specimen from women patients prior to delivery or abortion, but no later than 24 hours after abortion, delivery, or miscarriage. The blood shall be tested to determine (Rh) factor and the woman shall be advised of these results. (No penalty proviso is included in the current version of the bill.) DISAPPROVED, because this procedure already is current practice and this bill would be unnecessary legislation.

S-292 Bassano-Health

This bill directs the Commissioner of Health to establish a center for the treatment of compulsive gamblers in Atlantic City. The center is to be funded by state revenue due from the gambling industry. A constitutional amendment would be necessary. DISAP-PROVED, because of the inability to implement this legislation, since not all the people concerned would be residents of Atlantic City or subject to treatment there.

S-295 Bassano—Nursing Homes

Requires nursing homes to hold in reserve a Medicaid bed for 14 days when the patient is transferred to a general hospital. Medicaid reimbursement is applied to the reserve period. ACTIVE SUPPORT.

S-372 Paelella-Motor Vehicle Accidents

This bill directs the Commissioner of Insurance to establish a schedule of maximum fees to be charged by physicians, chiropractors, and physical therapists when treating persons injured in auto accidents. Violators would be subject to license suspension. ACTIVE OPPOSITION, because it is unnecessary. The New Jersey State Board of Medical Examiners already has established an excessive fee mechanism to resolve any and all fee questions.

S-390 Rand—Cancer Research

Establishes and funds a Commission on Cancer Research. The Commission consists of two ex-officio members and seven citizens known for their knowledge and interest in medical research. ACTIVE SUPPORT.

S-400 Dalton-Reimbursement/Blue Shield

Equates nurse-midwives to physicians as providers of medical services under Blue Shield. ACTION DEFERRED, pending further information from Blue Shield of New Jersey.

S-452 Codey-Corrective Therapy

Creates the licensed profession of "corrective therapy" which is defined as the treatment of a human being on the direction of a licensed physician for the prevention of physical and mental deterioration from prolonged inactivity necessitated by disease or injury. Licensure and regulation is through the State Board of Medical Examiners. DISAPPROVED, because there is no need for this type of licensure.

S-508 Codey—Catastrophic Health Insurance

Creates a catastrophic health insurance fund to reimburse individuals for catastrophic costs incurred because of injury or illness. The fund is to be capitalized initially by the state which then would bill private carriers for their insureds. The carriers then would be permitted to recapture losses by placing surcharges on their policies.

All of the mechanism is to be monitored by the Insurance Department and administered via a "New Jersey Catastrophic Health Insurance Underwriting Association." DISAPROVED, although the Medical Society of New Jersey approves the concept of catastrophic health insurance, this bill would change the insurance companies into fiscal intermediaries, is not sound fiscally, and would prove counterproductive.

S-524 Dorsey—Tort Immunity (Municipal Services)

Extends governmental immunities to private physicians performing services for public entities whether as volunteers or independent contractors, APPROVED.

S-544 Dorsey—Renal Disease Treatment Centers

Provides state support of renal disease treatment centers operated by private, nonprofit agencies if they have been approved by the state. ACTION DEFERRED, pending further information from the sponsor of the bill, John Capelli, M.D., of Haddonfield, Camden County, and Robert Rigolosi, M.D., of Teaneck, Bergen County (Directors of Renal Dialysis Centers).

S-580 Lipman-Minor's Consent to Treatment

Amends existing law to allow minors who have been sexually assaulted (in the judgment of a treating physician) to consent to medical and surgical treatment. APPROVED.

S-618 Orechio—Reimbursement for Nursing Services (MSP)

Permits policies at the option of the subscriber to provide direct reimbursement to nurses for nursing care if the nurse is not paid a salary by any health care provider for the duties so performed. NO ACTION.

S-619 Orechio—Reimbursement for Nursing Services (Individual Health Insurance Coverage)

Same as S-618 except it applies to individual commercial insurance contract benefits. NO ACTION.

S-620 Orechio—Reimbursement for Nursing Services (Group Health Insurance)

Same as S-618 except it is applicable to group health insurance contracts. NO ACTION.

S-664 Ewing—Budget Appropriations

Removes the application of the state "caps" law in situations where the expenditures are reimbursable to the state through the imposition of fees or other charges upon those being licensed or regulated. ACTION DEFERRED, pending further information from the sponsor of the bill.

S-666 Rand—Controlled Dangerous Substances

Prescribes the trade and manufacture of "look-alike" drugs. Physicians and their employees acting within the normal course of practice are exempted, i.e. placebos. APPROVED.

S-698 Hagedorn—Public Eating Places

Requires every restaurant to display choke prevention posters and to distribute choke prevention pamphlets that have been provided by the State Department of Health. APPROVED.

S-740 Vreeland-Psychiatric Hospitals

Permits a state hospital to designate a maximum security area for patients being evaluated or observed pursuant to temporary commitment order. DISAPPROVED, as current provisions are adequate in the state mental hospitals for the patient population. In the case of criminal detention and observation, consultation can be provided at the jail site which is better equipped to provide maximum security. S-911 Perskie—New Jersey Campaign Contributions and Expenditures Reporting Act

This bill limits the amount of money which a PAC may contribute to state legislators. NO ACTION.

S-993 Ewing-Lawful Age

This bill would raise the legal age for purchasing and consuming alcoholic beverages in New Jersey from 19 to 21 years of age. This change would not affect those who reached the age of 19 prior of January 1 of the year following the general election at which the public question is submitted to the voters and only would become effective if approved by the voters. APPROVED.

S-1006 O'Connor-Professional Boards

Provides that anyone with any information concerning the possible negligent, incompetent, dishonest, or improper conduct or improper ment on the part of any licensee should report the same to the government. Immunity is granted to the person reporting for good faith actions.

If a formal complaint is filed then the privilege is expanded to grant absolute immunity except if malicious prosecution or abuse of process occurs. ACTIVE OPPOSITION, in favor of Assembly Bill 785. If there is a need for this type of legislation, A-785 is a more reasonable approach.

S-1009 0'Connor-Professional Boards

The bill grants the State Board of Medical Examiners the authority to discipline a licensee who did not report another licensee who functionally is impaired due to drug, medical, or psychiatric disorders.

Professional societies would be required to report all suspensions and expulsions plus "bargained" for discipline within 20 working days of final action. (Note: This applies to professional negligence or professional misconduct.)

Every insurance carrier must file a report on every settlement of award in professional liability exceeding \$5,000. The uninsured licensee must report himself. ACTIVE OPPOSITION, this bill is unworkable and could create a professional liability crisis since the licensees would be compelled to refuse to settle in order to protect their privilege to practice. Negligence is the basis for a civil suit for damages, but as an isolated event, it is not and should not give rise to a disciplinary action. This bill would require over 100 investigations each year.

SCR-4 Hagedorn-Medicaid Study Commission

Creates a 12-member Commission to study Medicaid abuse and evaluate the overall program, including the development of alternative methods providing necessary and appropriate medical assistance to the needy. NO ACTION.

SCR-68 Kennedy-Medicaid

Creates a study commission of eight legislators to evaluate the administrative structure of Medicaid, NO ACTION.

A-6 Deverin—Amends the Automobile Reparation Reform Act

Amends the Automobile Reparation Reform Act in accordance with the Legislative Study Commission Report. Calls for the creation of review boards to establish schedules of reasonable medical fees. ACTIVE OPPOSITION, because the Council feels that it is unnecessary for the Commissioner of Insurance to promulgate a schedule of fees; also, there are existing mechanisms for evaluating the appropriateness of medical care such as PSROs and the State Board of Medical Examiners.

A-7 Deverin-Medicaid

Expands Medicaid coverage to medically needy persons who are ineligible under the current law because their incomes are too high. NO ACTION.

A-8 Deverin-Respiratory Therapist Act

Provides for the licensing and regulation of respiratory therapists and technicians under the auspices of the State Board of Medical Examiners. Provision of services other than under the direction or supervision of a physician shall be cause for revocation of licensure. ACTIVE OPPOSITION, because the Council feels that respiratory therapists and technicians should function under the supervision of physicians and should follow the rules and regulations of the hospital medical staff. There is no need for licensure.

A-10 Deverin-Occupational Therapy Licensing Act

Creates a new class of licensed practitioners who would function independently and would be permitted to perform such services as the design, fabrication, and application of splints; sensorimotor activities; the use of specifically designed crafts, guidance in the selection and use of adaptive equipment, therapeutic activities to enhance functional performance; and prevocational evaluation and training, and consultation concerning the adoption of physical environments for the handicapped. The State Board of Medical Examiners will exercise jurisdiction. DISAPPROVED, because this bill lacks the proper physician direction and there is no need for licensure.

A-26 Muhler-Nuisance Suits

Allows reasonable attorney fees to successful defendants in the case of any frivolous claims. (Note: This also includes cross claims, third-party complaints, and counterclaims.) APPROVED.

A-28 Muhler-Education

This bill would prevent any state agency from mandating family life courses. NO ACTION.

A-45 Matthews-Group Health Insurance

Would allow insurers to compensate marriage counselors acting within the scope of their license. DISAPPROVED, because the service provided is not a health care service.

A-52 Matthews—Cardiopulmonary Resuscitation

Requires CPR training for students in grades 11 and 12. CONDI-TIONAL APPROVAL, pending the inclusion of periodic updating of the techniques of CPR.

A-110 Visotcky—Temporary Commitment

Provides a method by which the state receives reimbursement pursuant to the seven-day commitment statute. NO ACTION.

A-131 Weidel—Withholding or Withdrawing of Life-Sustaining Procedures in Event of Terminal Illness

Empowers adults to execute a statutory form of directive to their physicians providing for the withholding or withdrawing of lifesustaining procedures during a terminal illness. The directive would be valid for five years and provides immunity for physicians and other providers complying with such a directive.

"Life sustaining" means a modality or intervention that utilizes mechanical or other artificial means to sustain, restore, or supplant a vital function which only would serve to prolong artificially the moment of death where, in the judgment of the attending physician, death is imminent whether or not such procedures are utilized. It does not include "the administration of medication or the performance of any medical procedure deemed necessary to alleviate pain." APPROVED.

A-187 Bryant—Professional Service Corporations

Allows the use of the designation "P.C." or professional corporation in addition to the current statutory method. APPROVED. A-328 Schwartz—Hereditary Disorders

(Note: S-3235 (1981) was signed into law and is similar to this bill.)

This bill requires the Department of Health to set up a program of assistance for New Jersey citizens who suffer from specified hereditary disorders. The program would include the development of: 1) standards for detecting hereditary disorders; 2) voluntary testing and genetic counseling services; 3) laboratory services; 4) an educational program concerning hereditary disorders; and 5) curriculum guidelines (in cooperation with the Commissioner of Insurance) to eliminate "arbitrary and unreasonable discrimination against carriers or victims" of these disorders in insurance policies. BILL WITHDRAWN.

A-337 Fortunato—Compulsive Gambling

Requires the Department of Health to establish a program on the risk of becoming a compulsive gambler and providing treatment for those so afflicted. Also, calls for the establishment of an Advisory Council on Compulsive Gambling. DISAPPROVED, because this bill would be very difficult to implement and would not serve the public interest.

A-338 Fortunato—Treatment of Compulsive Gamblers

Requires the Department of Health to establish and advertise a treatment center for compulsive gamblers and to solicit grant funds for the establishment and operation thereof.

The Commission shall submit operational and fiscal reports to the Legislature on an annual basis. DISAPPROVED, because this bill would be very difficult to implement and would not serve the public interest.

A-435 Rod-Rights of Nursing Home Residents

Grants nursing home residents the free choice of physician and the right to purchase medications from the pharmacy of their choice. APPROVED (Drs. Rineberg and Greifinger voted in the negative and asked to be so recorded.)

A-443 McEnroe—Poison Control

This bill provides for the establishment of a poison control and drug information program by the Commissioner of the Department of Health. The principal activity of the program will be answering the requests by telephone for poison information and making recommendations for appropriate emergency care and treatment referral of poisoning exposure and overdose victims. Program services are to be available to the residents of every county on a 24-hour basis. APPROVED.

A-448 Girgenti-Abuse of the Elderly and Disabled

This bill requires anyone who has knowledge of the exploitation or abuse of elderly or disabled persons to report the same to the Commissioner of Human Services. Failure to report constitutes a disorderly persons offense. CONDITIONAL APPROVAL, pending the following amendment on page 1, line 7—"his resources for another person's profit or advantage to the disadvantage of the elderly person."

A-455 Girgenti-Abuse of Elderly

Professionals and nonprofessionals in the fields of health and society services would be required to inform the ombudsman for the institutionalized elderly when they have reasonable cause to believe that any elderly person has been abused or exploited. DISAP-PROVED, in favor of A-448 with suggested revisions.

A-464 Wolf-Patient Rights

This proposal would effect a statutory bill of rights for patients in general hospitals. It adds nothing to existing common law except detailed procedures.

It provides that every person admitted to a general hospital shall have the right;

a. To considerate and respectful care;

- b. To be informed, upon request, of the name of the physician responsible for coordinating his care;
- c. To obtain from the physician complete and current information concerning his diagnosis, treatment, and prognosis in terms he reasonably can be expected to understand. When it is not medically advisable to give this information to the patient, it shall be made available to another person on his behalf;
- d. To receive from the physician information necessary to give informed consent prior to the start of any procedure or treatment and which, except for those emergency situations not requiring an informed consent, shall include as a minimum the specific procedure or treatment, the medically significant risks involved, and the possible duration of incapacitation, if any. The patient shall be advised of any medically significant alternatives for care or treatment:
- e. To refuse treatment to the extent permitted by law and to be informed of the medical consequences of this action;
- f. To privacy to the extent consistent with providing adequate medical care to the patient. This shall not preclude discussion of a patient's case or examination of a patient by appropriate health care personnel;
- g. To privacy and confidentiality of all records pertaining to his treatment, except as otherwise provided by law or third-party payment contract;
- h. To expect that within its capacity, the hospital will make reasonable response to his request for services;
- i. To be informed by the physician of any continuing health care requirements that may follow discharge;
- j. To be informed by the hospital of the necessity of transfer to another facility prior to the transfer and of any alternatives to it which may exist;
- k. To be informed, upon request, of other health care and educational institutions that the hospital has authorized to participate in his treatment;
- 1. To be advised if the hospital proposes to engage in or perform human research or experimentation and to refuse to participate in these projects;
- m. To examine and receive an explanation of his bill regardless of source of payment;
- n. To be advised of the hospital rules and regulations that apply to his conduct as a patient; and
- o. To treatment without discrimination as to race, age, religion, sex, national origin, or source of payment. APPROVED.

A-515 Patero-Education

Provides that no state agency can mandate family life education. Such a program can be offered as an elective by the individual school districts provided informed consents from parents for the students enrolled are obtained. NO ACTION.

A-518 Herman-No Fault Auto Insurance

This bill places a \$100,000 limit on medical expense benefits. Establishes an Advisory Committee to assist the Commissioner of Insurance in establishing reimbursement schedules for medical and hospital services (the rates of the Hospital Rate-setting Commission would be used). Those convicted of driving under the influence would not be able to assert claims. The current \$200 medical expense threshold would be retained for claims under \$10,000. A verbal threshold would be used for claims exceeding \$10,000. (Note: This could present a difficulty, since current rules of court do not allow specification of damages in pleadings. Apparently, the technique used in federal cases of alleging simply that "damages exceed \$10,000" would be used.) ACTIVE OPPOSITION, because limitations placed on expense benefits, during this inflationary period, would not be reasonable. Bill is considered discriminatory and could lead to the rationing of health care.

A-521 Herman-Abortion

Requires the Department of Health to prepare a booklet that outlines the medical risks of abortion as opposed to childbirth. Further, requires a complete listing of alternative services should the woman choose not to have an abortion. The booklet shall be made available to physicians.

Physicians shall make copies available to women seeking abortions and shall respond to questions. The physician must secure an

acknowledgement from the patient. (Forms to be provided by the Department of Health.)

All health care facilities and physicians engaged in the provision of abortion services shall file reports with the Department of Health within ten days following the performance of abortions.

Failure to comply with this Act is a disorderly person's offense and can lead to disciplinary proceeding under N.J.S.45:9-1 et seq.

ACTIVE OPPOSITION, because existing statutes and regulations in case law cover the appropriate health concerns of this legislation and constitutional issues would be raised under the format of this bill.

A-522 Herman-Hospital Service Corporations

Mandates Blue Cross coverage for reconstructive breast surgery including the costs of prostheses and outpatient chemotherapy. ACTION DEFERRED, pending further information from Blue Cross.

A-523 Herman-Medical Service Corporation

Mandates Blue Shield coverage for reconstructive breast surgery including the costs of prostheses and outpatient chemotherapy. ACTION DEFERRED, pending further information from Blue Shield.

A-524 Herman—Commercial Health Insurance

Companion to A-522 and A-523, it mandates commercial carrier coverage and group policies. ACTION DEFERRED, pending further information.

A-525 Herman-Commercial Health Insurance

Companion bill to A-522, A-523 and A-524—it includes individual health insurance contracts. ACTION DEFERRED, pending further information.

A-531 Smith—Cancer Resesearch

Establishes and funds a Commission on Cancer Research. The Commission consists of two ex-officio members and seven citizens known for their knowledge and interest in medical research. ACTIVE SUPPORT.

A-551 Villane-Controlled Substances

This bill would make it illegal to obtain or possess nitrous oxide without a prescription, except for certain medical personnel. The prescription must be written by an anesthesiologist. ACTION DEFERRED, pending further information from the sponsor of the bill and from the New Jersey Society of Anesthesiologists.

A-556 Villane-Blood Donors

Would override current regulations and allow persons over 65 years of age, in good health, to act as blood donors. APPROVED. A-710 Bocchini—Dental X-rays

Provides that dental x-rays may be used only for diagnostic and treatment purposes and not to verify performance of dental services to health insurers, dental plans, and so on. APPROVED.

A-719 Karcher—Administrative Procedure

This bill empowers the Director of the Office of Administrative Law to review each proposed rule for technical compliance prior to publication.

Subsequent to adoption by the agency, the Director then must conduct a complete substantive review within 30 days. If the Director approves the rule it becomes effective. If he disapproves, it has the effect of a veto. The Governor, however, may reverse the Director's disapproval.

It is estimated that this type of review can reduce rule-making by 27 to 51 percent. ACTIVE SUPPORT.

A-748 Markert—Reporting of Certain Information to the State Board of Medical Examiners

This bill requires:

a. A health care facility to report to the State Board of Medical Examiners (hereinafter referred to as the Board) any disciplinary proceedings or action taken by the facility against a board-licensed physician or surgeon, or any malpractice insurance settlement, judgment, or arbitration award to which the facility is a party.

b. An insurer or insurance association immediately to notify the Board, in writing of any medical malpractice, claim settlement, judgment, or arbitration award over \$10,000 against any boardlicensed physician or surgeon insured by the insurer or association.

ACTIVE OPPOSITION, this bill is unworkable and could create a professional liability crisis since the licensees would be compelled to refuse to settle in order to protect their privilege to practice. Negligence is the basis for a civil suit for damages, but, as an isolated event, it is not and should not give rise to a disciplinary action. This bill would require over 100 investigations each year.

A-785 Markert—Reporting of Certain Information to the State Board of Medical Examiners

This bill grants immunity from civil damages to any person

providing, without malice, information to the State Board of Medical Examiners involving any act of a physician or surgeon that the person has reasonable cause to believe violates the state's medical practice act. A physician, surgeon, or other person may not invoke the privileged nature of physician-patient relations to prevent such information from being provided to the State Board. Any information provided to the State Board. Any information provided to the State Board under the provisions of this bill shall be held in confidence by the Board, pending final disposition of the State Board's inquiry or investigation. NO ACTION. AR-6 Villane—Placement of the Deinstitutionalized Handicapped

Creates an Assembly Committee to study the role of the municipalities in placing the deinstitutionalized handicapped in the community. NO ACTION.

ACR-10 Hardwick—Frail Elderly

Creates a Legislative Commission to undertake a study of facilities and services for the care and protection of the frail elderly in New Jersey. NO ACTION.

The Reference Committee recommends that the Supplemental Report be filed.

HOUSE ACTION: Filed.

Supplemental #2

CURRENT STATE LEGISLATION

The Council offers this Supplemental #2 Report covering items dealt with since the compilation of its Supplemental #1 Report.

S-390 Rand—Cancer Research

Establishes and funds a Commission on Cancer Research. The Commission consists of two ex-officio members and seven citizens known for their knowledge and interest in medical research. AC-TIVE SUPPORT.

S-400 Dalton-Reimbursement/Blue Shield

Equates nurse-midwives to physicians as providers of medical services under Blue Shield. CONDITIONAL APPROVAL, pending the deletion of the following sentence from the bill: [The practice of nurse-midwifery shall be deemed to be within the provisions of P.L. 1940, c. 74 and duly licensed nurse-midwives shall have such privileges and benefits in the scope of their practice under the act as are afforded thereunder to the licensed physicians and surgeons in the scope of their practice.]

S-523 Dorsey—Professional Boards

Creates a "sunset" law for state agencies. The State Board of Medical Examiners would terminate within five years unless it could demonstrate a public need for its continued existence. The review would be conducted by the Joint Committee on Regulatory Agencies. ACTIVE SUPPORT.

S-566 Lynch—Licensing and Regulation of Athletic Trainers

Creates an Advisory Committee under the State Board of Medical Examiners. Trainers are persons employed as such by a school, college, university, professional team, or amateur athletic association and function under the direction, advice, or consent of the licensed physician. Applicants must meet the athletic training curriculum requirements of a college approved by the Board and must have graduated therefrom. They also shall pass a written and oral practical examination. ACTIVE OPPOSITION, because this bill is unnecessary legislation and would create the pseudopractice of medicine

S-762 McManimon—Acupuncture

Creates the practice of acupuncture as a free-standing profession. Patients must be referred by physicians. Physicians must be certified separately or registered with the State Board of Medical Examiners to use the modality in educational or research projects. ACTIVE OPPOSITION, because 1) acupuncture should not be a free-

standing profession, 2) this bill would create the pseudopractice of medicine by allowing nonphysicians to practice acupuncture, and 3) physicians already are licensed to use acupuncture as a surgical modality.

S-771 Orechio-Drug Abuse Treatment Center

Provides that no drug abuse treatment center can be established within 500 feet of a school. APPROVED.

S-792 Bornheimer-Alcoholism Treatment Services

This bill will amend the New Jersey Medical Assistance and Health Services Act (P.L. 1968 c. 413), to mandate Medicaid coverage of alcoholism treatment services which have been prescribed by a physician. Currently, Medicaid only covers alcoholism treatment services which occur at a hospital. This bill would extend coverage to detoxification centers and approved residential treatment programs. DISAPPROVED, because the Medicaid budget already is impaired for existing covered services and the program cannot afford to add new areas of treatment to its schedule of benefits.

S-794 Bornheimer—Group Health Insurance

Would require health insurers to compensate marriage counselors acting within the scope of their license. **DISAPPROVED**, because marriage counseling is a social service, not a medical service.

S-806 Zane—Terminal Illness

Extends the terminal illness act to adults and appropriates \$500,000. **DISAPPROVED**, because existing programs make this legislation unnecessary.

S-807 Zane—Chronic Illness

Requires the Department of Health to extend financial assistance to persons suffering from chronic diseases, but does not appropriate a specific amount of funds. **DISAPPROVED**, because existing programs make this legislation unnecessary.

S-834 Zane—Automobile Liability

Would delete medical expense coverage from the current personal injury protection mandate and make it optional on the part of the policy holder. ACTIVE OPPOSITION, because this bill would present another coverage option to the no-fault concept which could result in gaps of coverage. It also raises a question as to whether health insurers now would have to cover no-fault situations.

S-869 Zane—Blue Cross

Mandates Blue Cross coverage of reconstructive breast surgery following cancer treatment. APPROVED.

S-870 Zane—Blue Shield

Mandates Blue Shield coverage of reconstructive breast surgery following cancer treatment. APPROVED.

S-871 Zane—Group and Individual Insurance

Applies foregoing concepts of S-869 and S-870 to commercial insurance companies. APPROVED.

S-872 Zane-Group and Individual Insurance

Applies foregoing concepts of S-869 and S-870 to commercial insurance companies. APPROVED.

S-925 Laskin-Alcoholic Beverages

Raises the age at which a person can legally sell, buy, or consume alcoholic beverages from 19 to 21 years of age. APPROVED. S-966 Feldman—Compulsive Gambling

Directs the Commissioner of Health to establish an outpatient center for compulsive gamblers and their families in Atlantic City or another municipality. DISAPPROVED, because this bill would be very difficult to implement and would not serve the public interest. S-967 Feldman—Licensing of Speech Therapists and Audiologists

Creates a direct licensing system within the Division of Consumer Affairs for speech therapists and audiologists. Continuing education is mandated. The individuals so licensed would function independently. Physicians and their employees are exempt under the Act as long as the employee is not termed a "speech therapist or audiologists." ACTIVE OPPOSITION, because while audiologists, by training and experience, technically are competent individuals they are not qualified to make judgmental decisions or to engage in clinical diagnosis. Granting licensure to those individuals would be a disservice to the public and, indeed, would produce increased costs

S-1015 Dumont—School Psychologists

for those services which they currently provide.

Would allow school psychologists to practice "school psychology" privately, outside their school district, without the necessity of a license to practice clinical psychology. ACTIVE OPPOSITION, because it would be unsound to allow an unlicensed psychologist to perform psychotherapy.

S-1045 Hirkala-Confidentiality

Extends confidentially to data in the possession of hospital peer review committees. ACTIVE SUPPORT.

S-1049 Hirkala-Civil Immunity of Review Committees

Extends civil immunity to hospital board members when exercising good faith in considering the appointment or dismissal of medical staff applicants. ACTIVE SUPPORT (Dr. Lehr voted in the negative and asked to be so recorded).

S-1115 Dalton-Physical Therapy

Permits physical therapy services to be ordered by dentists within the scope of their licensed practice. APPROVED.

S-1123 Feldman—Privileged Communications

Extends privileged communications to psychiatric social workers and nurses. By implication, it advances the concept that persons other than physicians and psychologists may treat mental health conditions. DISAPPROVED, unnecessary legislation.

S-1152 Hurley—Withholding or Withdrawing of Life-Sustaining Procedures in Event of Terminal Illness

Empowers adults to execute a statutory form of directive to their physicians providing for the withholding or withdrawing of life-sustaining procedures during a terminal illness. The directive would be valid for five years and provides immunity for physicians and other providers complying with such a directive.

"Life sustaining" means a modality or intervention that utilizes mechanical or other artificial means to sustain, restore, or supplant a vital function which would serve only artificially to prolong the moment of death where, in the judgment of the attending physician, death is imminent whether or not such procedures are utilized. It does not include "the administration of medication or the performance of any medical procedure deemed necessary to alleviate pain." APPROVED.

S-1163 Bassano-Motor Vehicles

Would require parents of a child under the age of 5 to place their child in an approved child-restraint system when transporting him in the front seat of a passenger automobile. Where the child is riding in the rear seat, it would require them to place a child under 1 year of age in a child-restraint system, and a child between 1 and 5 years of age in either a child-restraint system or secured by a seat belt. An exception would be where the child is being held in the arms of a passenger at least 12 years old. ACTION DEFERRED, back to Council for further study and possible amendment.

S-1182 Laskin-Motor Vehicles

Would require parents of a child under 4 years of age to place their child in an approved child-restraint system when transporting him in a passenger automobile. An exception would be where the child is being held in the arms of a passenger at least 12 years old. If the person charged did not have an approved system in the car at the time of the offense, the judge may dismiss the charge upon being supplied proof that the person has purchased or rented such a system. However, he may impose court costs. ACTION DEFERRED, back to Council for further study and possible amendment.

A-118 Visotcky—Statute of Limitations

Creates a positive statute of limitations in New Jersey that would be two years from the date of the act or two years from the date the act should have been discovered, but in no event greater than ten years. ACTIVE SUPPORT. (N.B. Active support also will be given MSNJ/MIENJ professional liability bills when they are introduced.)

A-119 Visotcky-Podiatry Education

Permits the Department of Higher Education to make capitation payments to out-of-state podiatry schools for New Jersey residents to assure New Jersey of a future supply of podiatrists. ACTIVE OPPOSITION, because the need for this legislation has not been demonstrated and its cost would be an unnecessary burden on the taxpayers of New Jersey.

A-410 Kavanaugh—Controlled Substances Therapeutic Research

Grants to the Department of Health, the ability to regulate and control the therapeutic research of marijuana in conformity with the Federal Drug Enforcement Administration (FDEA), the Federal Drug Administration (FDA), and the National Institute on Drug Abuse Protocol. APPROVED.

A-522 Herman—Hospital Service Corporations

Mandates Blue Cross Coverage for reconstructive breast surgery including the costs of prostheses and outpatient chemotherapy.

APPROVED.

A-523 Herman-Medical Service Corporation

Mandates Blue Shield Coverage for reconstructive breast surgery including the costs of prostheses and outpatient chemotherapy. APPROVED.

A-531 Smith-Cancer Research

Establishes and funds a Commission on Cancer Research. The

Commission consists of two ex-officio members and seven citizens known for their knowledge and interest in medical research. AC-TIVE SUPPORT.

A-598 Bocchini-Acupuncture

Creates the practice of acupuncture as a free-standing profession. Patients must be referred by physicians. Physicians must be certified separately or registered with the State Board of Medical Examiners to use the modality in educational or research projects. ACTIVE OPPOSITION, because 1) acupuncture should not be a free-standing profession, 2) this bill would create the pseudopractice of medicine by allowing nonphysicians to practice acupuncture, and 3) physicians already are licensed to use acupuncture as a surgical modality.

A-691 Herman-Alcoholic Beverages

Would change the lawful age of purchase, possession, and consuming alcohol beverages to 21 years of age. APPROVED.

A-693 Herman-Medicaid

Extends Medicaid eligibility to those currently not eligible if they encounter a catastrophic illness which means "any illness or injury requiring inpatient care in a hospital or skilled nursing facility, the costs of which exceed 25 percent of the person's annual net income in excess of the applicable categorical assistance eligibility level, whichever is less." NO ACTION.

A-729 Kern-Medical Records (Health Care Facilities)

Provides that a medical care facility must allow the patient or his representative an opportunity to review their records without charge. Further provides that governmental agencies may have access to records when their agents are identified and for emergency official reasons. DISAPPROVED WITH ACTIVE OPPOSITION IF THE BILL MOVES, because this bill is poorly drawn and overreaching. Emergency official reasons is a rather obscure term. A-746 Kern—Insurance Privacy Act

Prohibits insurance entities from releasing identifiable data relative to insureds except when authorized by the written release of the insured. Information may be provided to governmental authorities where disclosure reasonably is necessary to protect the legal interest of the insurance company. NO ACTION.

A-778 Doyle-Health Care Facilities

Authorizes any person to bring an action to enjoin others from continuing to conduct a health care facility without a license or after suspension or revocation of a license. NO ACTION.

A-812 Jackman-For-Profit Hospitals

Exempts for-profit hospitals from the jurisdiction of the ratesetting law. NO ACTION.

A-830 Kern-Radiology Services

Requires Blue Shield to cover inpatient radiology. ACTIVE SUPPORT.

A-902 Kern-Local Health Planning

Designates the State Department of Health as the sole agency for comprehensive planning on a state-wide basis. Calls for local area groups to be recognized by the Governor on the recommendation of the Commissioner of Health. These local agencies replace the HSAs. No group of persons, i.e. providers or consumers, may constitute a majority. NO ACTION.

A-928 Lesniak-Workmen's Compensation

This bill would provide that employed physicians treating fellow employees would be liable for negligent acts. DISAPPROVED, this legislation is unnecessary and duplicative because already there is a process available for such claims through the workmen's compensation statutes.

A-954 Karcher—Hypnosis

Creates the profession of licensed hypnotechnicians. Practitioners of the healing arts are exempt from the requirements of this act. The hypnotechnician practices therapeutically only upon referral from a health care practitioner.

A separate board of nine people is created. Two of the nine persons could be physicians. ACTIVE OPPOSITION, because there is no need for this type of practice or profession.

A-991 Wright-Audiologists & Speech Pathology

Creates and licenses the practice of audiology and speech pathology through the Division of Consumer Affairs. ACTIVE OPPOSITION, because while audiologists, by training and experience, technically are competent individuals, they are not qualified to make judgmental decisions or to engage in clinical diagnosis. Granting licensure to those individuals would be a disservice to the public and, indeed, would produce increased costs for those services which they currently provide.

A-999 Rocco—"Look-Alike" Drugs

Proscribes the trade and manufacture of "look-alike" drugs.

Physicians and their employees acting within the normal course of practice are exempted, i.e. placebos. APPROVED.

A-1055 Doria-Nursing Education

Allows schools of professional nursing to receive pro rata capitation for part-time students. ACTIVE SUPPORT.

A-1083 Chinnici-Chronic Renal Disease

Removes certificate of need requirements for end-stage renal dialysis. ACTION DEFERRED, pending further information from the sponsor of the bill, John Capelli, M.D., of Haddonfield, Camden County, and Robert Rigolosi, M.D., of Teaneck, Bergen County (Directors of Renal Dialysis Centers).

A-1099 Herman-Consent for Medical Treatment

Allows a competent adult to appoint an agent who can make medical treatment decisions when that person is not capable of doing so himself. APPROVED.

A-1104 Herman—Human Leucocyte Antigen Testing

Would admit the human leucocyte antigen blood test into evidence to establish the positive probability of parentage. AP-PROVED.

A-1160 Jackman-Sexual Assaults

Provides that in certain cases of sexual assault where the victim is less than 13 years of age, the court may order the convicted perpetrator to undergo a total orchiectomy. DISAPPROVED, because it is inappropriate to use medical procedures as a method of punishment.

AJR-7 McEnroe-Hearing Impairment

Creates a commission to study the adequacy of services and programs for hearing-impaired children. NO ACTION. AJR-8 McEnroe-Nurse Practitioner

Creates a commission to study the role of the nurse practitioner. NO ACTION.

AR-31 Albohn-Legislation

Places a limit on the number of bills an assemblyman may introduce. NO ACTION.

The Reference Committee recommends that this Supplemental Report be filed.

Council on Public Relations

Frank J. Malta, M.D., Chairman, Toms River

(Reference Committee "D")

The Council on Public Relations continues to carry out the continuity of our coordinated public relations campaign in reaching the public, the membership, and the media. The Council studied a variety of new projects and instituted those falling within the mandates of the House of Delegates and the Board of Trustees.

CONTINUING PROJECTS

- A. Publication and distribution of:
 - (1) Membership Newsletter
- (2) Monthly news releases on "Medical Milestones"; "Should I Seek a Second Opinion?"; "Who Says You're Too Drunk To Drive?"; "America's Social Habits Have Changed, So Has VD"; and various other subjects ranging from explaining the mechanisms for handling patient complaints to explaining when to seek a second medical opinion.
- (3) Publishing of booklets and signs supporting public service announcements such as "We Want To Please You"; "How To Get Your Medical Records"; "VD Booklet"; "Marijuana Booklet"; and "Causes and Treatment of Alcoholism"
- B. Preparation and publication of special news releases and publicity as required from time to time in furtherance of the Society's business interest and activities, including:
 - (1) The Annual Meeting
 - (2) Selected official programs and activities
- (3) Professional Liability—through newspaper articles explaining MSNJ's position on professional liability and the problems that are being reflected on patient care.
- (4) JEMPAC—continued cooperation with JEMPAC in the dissemination of promotional material encouraging physicians and their spouses to become politically more active.
- C. The Golden Merit Award ceremony continues to be an important function at which our senior physicians, who have been in practice 50 years, receive special recognition. In 1981, 83 physicians were so recognized, making a total of 1,344 since the awards began in 1957. The recipients and their families receive undivided attention from the state and county leaders prior to the formal awards ceremonies and during the reception that follows.
- D. Encouragement of the continuance or establishment of orientation programs for new members by the component societies.
- E. Encouragement of increased voluntary blood donations throughout the year and particularly during vacation time in the summer and over Thanksgiving and Christmas holidays. F. Encouragement of radio broadcasts under the auspices of
- component medical societies and the State Society.

 G. Encouragement of medical TV programs of informa-
- H. Placement services in The Journal of MSNJ.
- I. Coordinate efforts of the Council on Public Relations with the Ad Hoc Committee on Drug Abuse for future MSNJ involvement in drug abuse education and prevention.

NEWSPAPERS

tional value to the public.

During the past year, we dealt with such public service topics as how to deal with cold weather, high blood pressure,

insect stings, drunk driving, venereal disease, giving blood, poison plant information, and a blood-alcohol chart.

MAGAZINES

In January, May, and September, 1981, our ads appeared in *Time, Newsweek, U.S. News and World Report, Sports Illustrated*, and *New Jersey Monthly*. Subjects covered in the magazines included "Fight The Winter Doldrums"; "Most People Check Their Tire Pressure More Often Than Their Blood Pressure"; and "Should I Seek A Second Opinion?"

DIRECT MAIL

Each member received four mailings this year. The members were mailed posters titled "It's Your Body"; "Should I Seek A Second Opinion?"; a No Smoking Poster; and an Opposition Poster to HSA.

TELEVISION

During 1981, public service announcements aired out of New York and Philadelphia reached over three million viewers. This is our most effective method of reaching the population of New Jersey. Cooperation from the 11 television stations running our material continued to be excellent. During 1981, three separate television spots by Doctor Goracci covered the subjects of old age, alcoholism, and mental health. Three other spots covered high blood pressure, glaucoma, and second opinions.

RADIO

In an effort to cover fully the state of New Jersey via the radio waves, public service announcements were mailed to 95 radio stations in New York, Pennsylvania, New Jersey, and Delaware. The subjects covered and the timing of distribution are tied to the newspaper releases. Each year the ads and radio and television spots elicit more and more response from the public. For example, an ad released in August regarding alcohol and driving elicited 237 requests for a blood-alcohol chart. An ad run in October drew 2,107 requests for a booklet about VD. There were 983 requests for an exercise booklet and 1,728 asked for the poison plant information.

SPECIAL PROGRAMMING

- A. Nike (the footwear company) has produced a highly acclaimed television documentary about the Honolulu Marathon. It never before has been shown in this area. Through personal contact with the Nike Company, we have been given permission to identify the Medical Society as local sponsors for the airing of this documentary via New York and Philadelphia television stations.
- B. Assistance in promoting Drug Seminar (April, 1981).
- C. Preparation of promotional material for the Women's Auxiliary Annual Meeting.

DRUG ABUSE

The Council on Public Relations in cooperation with the Ad Hoc Committee on Drug and Alcohol Abuse continued to mail a brochure on drug abuse to the public on request. A release also was prepared to point out the dangers of marijuana.

MEMBERSHIP

A special promotion in cooperation with the American Medical Association was launched to increase the membership of MSNJ. A brochure was offered outlining the benefits of belonging to organized medicine. Each county society is being given a list of interested nonmembers from their county to followup with personal contacts.

REFERRALS FROM THE HOUSE OF DELEGATES

A. Opposition to Health Systems Agencies—The House of Delegates adopted Resolution #9 (Opposition to Health Systems Agencies) directing the Council on Public Relations to use its facilities through the media to express the Society's opposition to HSAs and to make it known there is little

justification for the continued cost to the taxpayers of these politically motivated agencies.

B. Health Systems Agencies—Encourage our physicians to become involved and have a positive influence until the HSAs are legislated out of existence (Resolution #25).

C. Program extolling benefits of private practice of medicine
—The Council on Public Relations felt the Society should
continue to explain to the public the merits of a one-to-one,
doctor-to-patient relationship (Resolution #29). The response to the referrals has been accomplished through a
variety of public relation releases utilizing newspapers, magazines, radio, and TV, where appropriate.

The report of the Council on Public Relations generated extensive discussion. It was noted that limitation of funds severely restricted the ability of the Council to fulfill its obligations. Failure of adequate press coverage of those issues deemed important to the Society is a problem that needs to be resolved.

The Reference Committee recommends that the report be filed.

Board of Trustees' Items

DISCONTINUE CME REQUIREMENTS

(Reference Committee "D")

Resolution #17 (1981) was referred to the Committee on Medical Education for further study. The resolution called for deletion of the continuing medical education requirements from the Bylaws and further provided that all physicians continue their CME activities on a voluntary basis.

In the course of conducting its study, the Committee found that access to continuing medical education programs readily is available. There appears to be no reasonable alternative to continuing medical education to satisfy either the public or physician community on the issue of accountability.

The Board, therefore, supports the Committee's position that mandatory continuing medical education in the Society should be sustained.

There was discussion regarding the value and necessity of continued CME requirements that had been recommended by the Board of Trustees in conformity with the report of the Committee on Medical Education. The comments were noted

The Reference Committee recommends that the report be filed

HOUSE ACTION: Filed.

FUNDING FOR A DEPARTMENT OF FAMILY MEDICINE AT UMD-NEW JERSEY MEDICAL SCHOOL

(Reference Committee "D")

The 1981 House of Delegates adopted a resolution requesting that the New Jersey Legislature recommend and fund a department of family medicine at the University of Medicine and Dentistry-New Jersey Medical School. Responses to the resolution were received by the Board at the September 20, 1981, meeting from Senator John H. Dorsey and Stanley S. Bergen, Jr, M.D. At the request of the New Jersey Academy of Family Physicians, the Board agreed to postpone consideration of the two items of correspondence until the next meeting when a representative of the Academy could be present.

Salvatore V. Dallio, M.D., President of the Academy of Family Physicians, expressed appreciation for the Society's support of the resolution. He indicated his concern as to the direction to be taken to accomplish the establishment of a department of family medicine at the New Jersey Medical School, and assured the cooperation of the Academy in any endeavors toward this accomplishment.

In his letter, Senator Dorsey stated that he supported the concept of such a department, and would request that appropriate legislation be drafted.

In his response, Doctor Bergen advised that this issue has been ongoing for a number of years and repeated attempts to have the faculty at UMDNJ-New Jersey Medical School reconsider the matter have resulted in similar decisions. Representatives of the New Jersey Academy of Family Physicians were invited to participate as consultants during the last review and discussion of the matter. However, at the

end of this process, which took almost two years, the faculty reaffirmed its previous position that the main thrust would be in the education of primary care physicians and that while a component of such an educational program would include family medicine, a separate department was not indicated and appropriate at this time. Attempts have been made by the faculty and Dean of UMDNJ-New Jersey Medical School to strengthen the teaching in family medicine, and a faculty member from the Academy of Family Physicians has been appointed to a part-time, paid position with the school to assure the continued consideration of family medicine as an educational component.

It appears that both the Dean and the faculty have moved as far as they are willing, but have not altered their original position on department status. To support this position, they feel they have provided input for family medicine to curriculum development and have taken cognizance of the importance of family medicine as one alternative career choice for graduates from the school.

Doctor Bergen doubts that there will be voluntary agreement to a separate department and concurs in the position of the Dean that the development of a department for the New Jersey Medical School would be duplicative of what already has occurred at UMD-Rutgers Medical School. He believes there is validity to the Dean's position that it is better to have a comparison in the program in primary health care education and provide a choice for potential students than to develop both schools in a similar manner.

In the discussion of this term, Doctor Bergen mentioned, as indicated in his written communication, that he supports the Medical Society of New Jersey's resolution and has been supportive of similar resolutions over the years. However, he feels he has exhausted all attempts to effect a department status for family medicine at the New Jersey Medical School, and emphasized that he cannot force the faculty to act in a manner which he personally feels is correct.

The Board of Trustees continues to support the position of the House of Delegates and has advised the Committee on Medical Education to participate in activities whenever possible to uphold this position.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

STUDENT FINANCIAL AID PROGRAMS

(Reference Committee "D")

The following recommendations offered by the Medical Society of New Jersey Student Association concerning the Medical Society of New Jersey's role in designing equitable financing of a medical education were approved by the Board:

1. That the Board of Trustees endorse the concept of state level service-contingent loans and assist the Medical Society of New Jersey Student Association in having such a program introduced in the New Jersey State Legislature with active support from the Medical Society.

2. That the Board of Trustees charge the Committee on Medical Education to monitor federal and state aid packages and periodically recommend positions on the various federal and state programs, as they expire and are amended, to insure adequate access to medical education without financial barriers or unreasonable payback plans.

3. That membership in the Medical Society of New Jersey be required to apply for a loan through the Medical Society of New Jersey Loan Fund. Students attending a medical school that does not have an active Student Association could join directly through the Executive Offices.

The Reference Committee **recommends** that the report be filed.

HOUSE ACTION: Filed.

TEMPORARY LICENSE FOR UNLICENSED RESIDENTS IN APPROVED POSTGRADUATE TRAINING PROGRAMS

(Reference Committee "D")

Upon the recommendation of the Committee on Medical Education, the Board directed a communication to the State Board of Medical Examiners urging consideration of some form of temporary registration for residents in accredited programs in New Jersey.

At its meeting on June 10, 1981, the State Board voted to reaffirm its previous action not to issue such licenses.

The Reference Committee **recommends** that the report be filed.

Resolutions

#1

Referred to:

Introduced by: Camden County Medical Society

Subject: Request To Investigate Future Physician Supply in New Jersey

Reference Committee "D"

Whereas, the July, 1981, issue of *The Journal* of the Medical Society of New Jersey, page 503, contains an article by Donald B. Louria, M.D., entitled, "Coping with the Impending Doctor Glut"; and

Whereas, this article presents a grim picture of an oversup-

ply of physicians in New Jersey by 1990; and

Whereas, in the same issue of *The Journal* of the Medical Society of New Jersey, page 548, Stanley S. Bergen, Jr., M.D., notes that the University of Medicine and Dentistry of New Jersey will have 2,000 combined medical and osteopathic students in the New Jersey Medical School by 1985; and

Whereas, the two articles appear to contain an inherent contradiction regarding the number of physicians needed to care for the population in 1990 and the year 2000; now therefore be it

Resolved, that the Medical Society of New Jersey investigate the future physician supply in New Jersey so that the Medical Society of New Jersey's membership and the public might be informed properly.

Discussion essentially was in favor of Resolution #1 with the only point of disagreement being whether the resolved

should add any further specifics.

The Reference Committee recommends that Resolution #1 be adopted with the following change in the resolved to read:

Resolved, that the Medical Society of New Jersey investigate the future physician supply and future requirements in New Jersey so that the Medical Society of New Jersey's membership and the public might be informed properly.

HOUSE ACTION: Adopted as amended.

#22

Subject:

Referred to:

Introduced by: Bergen County Medical Society

Public Information

Reference Committee "D"

Whereas, cost containment and reduction of the cost of medical care in the United States, during these inflationary times, seems to be an urgent consideration in American politics, both locally and nationally; and

Whereas, the current focus of national, state, and local legislatures seems to be to encourage and, in some cases, even force competitive practice between group insurance carriers and various newer, untried approaches to financing the cost of care; and

Whereas, these approaches to present and future forms of enforced experimentation actually are promoting types of medical practice which could limit severely the quality and quantity of medical care available to large groups of unknowing persons who are not given a choice of which kind of medical care they would prefer to have available to them; and

Whereas, these experiments in medical care financing are unproven and their end results are not predictable; and

Whereas, new untried, experimental, competitive approaches to the financing of medical care may produce undesirable changes in medical practice which would lead directly to poor quality of medical care for many uninformed, sick individuals without their consent, and even make some types of necessary medical care unavailable to some persons; now therefore be it

Resolved, that the Medical Society of New Jersey and the

American Medical Association actively pursue every available means to inform the public of the experimental nature of these new approaches to financing medical care instituted without the public's fully informed consent; and be it further

Resolved, that the news media in New Jersey be approached with this information; and be it further

Resolved, that New Jersey State Assemblymen and Senators and United States Senators and Congressmen be advised of the Society's opposition to this unwarranted tampering with medical practice without the individual patient's and the public's knowledge of the possible ill effects on their health that these experimental laws could produce.

Resolution #22 presented several problems. It was felt by most people in attendance that not only the whereases but the resolveds were too nonspecific. In the absence of the sponsor or anyone else to explain the actual intent and references, the Committee did not feel it would be appropriate to revise Resolution #22. While the general consensus favored the overall position recommended by the resolution, the lack of specificity compelled the Committee to recommend rejection of Resolution #22 in its present form

The Reference Committee **recommends** that Resolution #22 be rejected.

HOUSE ACTION: Rejected in accordance with the recommendation of the Reference Committee.

Reports: COUNCIL ON MENTAL HEALTH COUNCIL ON PUBLIC HEALTH BOARD OF TRUSTEES' ITEMS RESOLUTIONS #2, #14, #18 Members:

Lawrence C. Sylvia, M.D., Chairman, Monmouth Joel S. Cherashore, M.D., Essex Francis X. Keeley, M.D., Camden Jon Marsicano, M.D., Middlesex Hormoz M. Minoui, M.D., Morris William V. Harrer, M.D., Alternate, Camden

Council on Mental Health

Harry H. Brunt, M.D., Chairman, Neptune

(Reference Committee "E")

This year the Council on Mental Health only has been able to meet on two occasions due to the inclemency of the weather in January. The main topics discussed and acted upon were:

- 1. A future mental health booklet update (which is progressing slowly).
- 2. Referral from the Board of Trustees concerning the establishment of a community mental health center in Essex County.

The Council met with Dr. Root, the Council President of the New Jersey Psychiatric Association, who presented his views as to why the Medical Society should oppose this particular mental health center; however, the Psychiatric Association has withdrawn its objections to this mental health center since funding for this center has not developed and the question of opposing it becomes moot. The Council will advise the Trustees that no further action need be taken in this matter.

- 3. The Council explored the ramifications of the new admission of training material for hospital and community mental health staffs and came to the conclusion after a subcommittee meeting that there was little to be done to change the Division of Mental Health and Hospitals guidelines, although we are opposed to many of them.
- 4. A great deal of discussion has arisen over the possibility of moving the Division of Mental Health and Hospitals to

the Health Department. Members of the Council are in favor of such a move and will forward their feelings and reasons for such a move to the Trustees.

The Reference Committee recommends that the report be filed

HOUSE ACTION: Filed.

Supplemental Report #1

(Reference Committee "E")

The following item contained in the March 10, 1982, report of the Council on Mental Health was presented to the Board of Trustees and approved at its meeting on April 18, 1982.

TRANSFER DIVISION OF MENTAL HEALTH AND HOSPITALS TO THE NEW JERSEY DEPARTMENT OF HEALTH

The Council recommended that the Medical Society of New Jersey support the transfer of the Division of Mental Health and Hospitals from the Department of Human Services to the Department of Health.

The Reference Committee recommends that the Supplemental Report be filed.

HOUSE ACTION: Filed.

Council on Public Health

Edward M. Coe, M.D., Chairman, Cranford

(Reference Committee "E")

A reorganization meeting of the Council on Public Health was held on Wednesday, February 10, 1982.

The Council reviewed a referral from the Council on Legislation, Senate Bill S-3235, which establishes a hereditary disorders program. The Council recommended disapproval of this bill, based on their concern that the bill is not

specific regarding treatability of some of the hereditary disorders. (Senate Bill S-3235 was signed into law on January 19, 1981, as c. 502, P.L. 1981.)

The Committee on Conservation of Vision reported on the 25th Annual Eye Health Screening Program held during the week of September 21, 1981. Eighty-nine hospital centers

participated in the program. The number of patients screened was 8,539, a decrease of 1,982 from the previous year. There were 3,531 patients with positive test findings, and 440 patients were considered tonometry suspects. The New Jersey Commission for the Blind and Visually Impaired will follow up the cases and report to the Committee. Since its inception, the program has screened 236,262 patients. The

Council on Public Health approved the date for the next Eye Health Screening Program to be conducted during the week of September 20, 1982.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Board of Trustees' Items

ADVISORY COMMITTEE TO REVIEW HEALTH CARE IN NEW JERSEY JAILS

(Reference Committee "E")

In response to a request from the Division of Public Interest Advocacy, Department of the Public Advocate, the President of the Society appointed an Advisory Committee to Review Health Care in New Jersey jails. The Committee consisted of the following members: Fred A. Mettler, M.D., Chairman, Thomas S. Bellavia, M.D., John F. Marshall, M.D., Edwin W. Messey, M.D., and Rudolf E. Schwaeble, M.D. The Committee was charged with conducting an assessment of matters in New Jersey and developing recommendations for the consideration of the State Government.

The State Department of Corrections operates and manages the state prison system. The County Board of Free-holders are responsible for the county jails with sheriffs and wardens exercising operational and management functions. The State Department of Corrections maintains regulatory control over the county jails.

During the spring and summer, the Committee met with representatives of the State Department of Health, the State Department of Corrections, and the State Department of the Public Advocate. The Committee also met with representatives of the New Jersey County Jail Wardens Association, and visited and corresponded with jail physicians, county sheriffs, and county wardens.

The Committee found a diversity of managerial system approaches and abilities. Likewise, health conditions and facilities capabilities differ from county to county.

One of the more frequent complaints was the inability of the county jail physician or warden to transfer a psychiatric case to one of the state psychiatric institutions. The psychiatric institutions simply will not admit these patients because they do not "fit" their admission criteria.

The Committee felt that flexible standards of medical care that afford an opportunity to accommodate local conditions should be utilized. At the same time, the Society must make certain that the ultimate element in these standards is in accordance with accepted medical practice—rather than

legalistic or sociologic terminology and frames of reference.

The Advisory Committee submitted a recommendation to the Board of Trustees, which was subsequently approved, requesting that the Department of the Public Advocate be advised that the Society urges the adoption of the AMA Standards for Health Services in Prisons for state prisons and county jails in New Jersey. (Note: These Standards take into account the particular circumstances of the institutions and the local government.)

The Department of Corrections has developed its own standards in this regard and has submitted them to the AMA for a determination of compatability. Therefore, it should not present an unmanageable problem for the jail system in New Jersey (state and county) to comply with the AMA program.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

TOXIC CHEMICAL WASTE STOCKPILE

(Reference Committee "E")

Last year the House of Delegates adopted a resolution calling for the Society to work directly with the state of New Jersey and its appropriate agencies to stop the storage and dumping at sea of toxic material. The New Jersey Assistant Commissioner of Environmental Management has acknowledged receipt of the resolution and indicated that its contents will be taken under advisement.

A reply from the United States Environmental Protection Agency noted that the agency will be making a careful review of all regulations regarding the generation, transportation, treatment, storage, and disposal of hazardous wastes, and the Society's concerns will be given due consideration.

The Reference Committee recommends that the report be filed

Resolutions

#2

Introduced by: Essex County Medical Society
Subject: Blood Pressure Testing
Referred to: Reference Committee "E"

Whereas, cardiovascular disease is the number one killer in the United States today, accounting for more than 50 percent of all deaths; and

Whereas, 35 million Americans have cardiovascular disease in the form of hypertension; and

Whereas, in the past ten years there has been a rise in awareness of high blood pressure in both young children and adolescents: and

Whereas, many hypertensives are unaware of their condition, and those aware hypertensives who begin treatment oftentimes drop out of therapy; and

Whereas, routine blood pressure measurements by physi-

cians would help identify unaware hypertensive persons; now therefore be it

Resolved, that the Medical Society of New Jersey recommend to all members that blood pressures be measured periodically on all patients three years of age and older.

The Reference Committee recommends that the following Substitute Resolution be adopted:

Resolved, that in view of the high rate of hypertension the Medical Society of New Jersey continue to urge its members to take blood pressure readings on a periodic basis on all patients.

HOUSE ACTION: Adopted.

#14

Introduced by: Essex County Medical Society

Subject: Transfer Division of Mental Health and Hospitals to the New Jersey Department of Health

Referred to: Reference Committee "E"

Whereas, mental illness is a massive public health problem; and

Whereas, mental illness has been demonstrated to have significant biological bases as well as relationships to numerous systemic conditions and illnesses; and

Whereas, the practice of modern holistic medicine emphasizes the unity of body and mind; and

Whereas, mental health problems require differentiation from social problems for service purposes as well as for funding purposes; and

Whereas, the Department of Human Services is oriented primarily to social problems; and

Whereas, the Department of Health is oriented to health problems; now therefore be it

Resolved, that the Medical Society of New Jersey petition the Governor and the New Jersey Legislature to amend, create, and approve legislative and/or administrative acts necessary to accomplish the transfer of the Division of Mental Health and Hospitals from the Department of Human Services to the Department of Health.

The Reference Committee recommends that Resolution #14 be adopted.

HOUSE ACTION: Adopted.

#18

Introduced by: Subject: Monosodium Glutamate
Referred to: Reference Committee "E"

Whereas, many restaurants use monosodium glutamate (MSG) as a flavor enhancer, (this is particularly true of Chinese restaurants); and

Whereas, many persons have shown an intolerance for MSG so that this reaction now is called the "Chinese restaurant syndrome." Some of these reactions include transient symptoms such as headache, "tightening" of the face, numbness or tingling sensations, flushing, chest pains, dizziness, and loss of sleep; and

Whereas, the National Academy of Sciences-National Research Council has recommended that in cases of MSG sensitivity, all diners should be forewarned of the possible addition of MSG so that patrons can request that MSG be omitted; now therefore be it

Resolved, that restaurants be urged to print notices on their menus to the effect that patrons who do not wish monosodium glutamate to be added to their food should so inform the waiter at the time of placing the order.

The Reference Committee recommends that the following Substitution Resolution be adopted:

Resolved, that the Medical Society of New Jersey communicate to the Department of Health and the Restaurant Trade Association the risk of extensive use of monosodium glutamate and the attendant sensitivity of restaurant patrons.

HOUSE ACTION: Adopted.

REFERENCE COMMITTEE "F"

Reports: COMMITTEE ON ANNUAL MEETING BOARD OF TRUSTEES' ITEMS RESOLUTIONS #3, #7, #8, #19 Members:

Charles J. Moloney, M.D., Chairman, Burlington David L. Broadnax, M.D., Bergen Robert J. Lorello, M.D., Essex Irving P. Ratner, M.D., Burlington Isabelo S. Torio, M.D., Middlesex Richard G. Sachs, M.D., Alternate, Union

Committee on Annual Meeting

Ralph J. Fioretti, M.D., Chairman, Rochelle Park

(Reference Committee "F")

In an effort to comply with the directive of the 1981 House of Delegates, that the annual meeting agenda be shortened beginning with the 1982 Annual Meeting, the following schedule was submitted to and approved by the Board of Trustees:

- 1. Hotel registration Friday evening.
- 2. Delegate registration 5 to 7 P.M., Friday and 7:30 to 9 A.M., Saturday.
 - 3. First session of the House at 9A.M., Saturday.
- 4. Adjourn the House at mid-morning on Saturday; reconvene for election session; and adjourn and schedule all reference committee meetings for that afternoon [and Sunday].
- 5. Schedule all scientific sessions for [Saturday and] Sunday.

6. Reference committee reports will be considered on Monday, eliminating the Tuesday session.

The bracketed items above were amendments made by the Reference Committee and approved by the House of Delegates.

The Committee on Annual Meeting pointed out that the reference committee amendments were not feasible for the following reasons:

- (a) If reference committee meetings are held on Saturday afternoon and Sunday, there would not be sufficient time for delegates to review reference committee reports before consideration by the House of Delegates on Monday morning.
- (b) If scientific sessions are scheduled for Saturday and Sunday, they would be in conflict with the House on Saturday and in conflict with reference committee meetings on Sunday.
- (c) The schedule is in conflict with Chapter II, Section 2 (c)—Sessions, of the Bylaws, which provides that: "The House of Delegates shall meet on the first day of the annual meeting of this Society, but may meet in advance of, or after adjournment of, the annual meeting. Sessions may be adjourned from time to time, as may be necessary, but shall be so arranged as not to conflict with the general sessions and sections meetings."

On the basis of the above, the Committee requested that the amendments proposed by the Reference Committee, and the subsequent approval by the House, be rescinded and that the original format, previously approved by the Board, be substituted.

Speaking on behalf of the Reference Committee, Doctor Robins noted that the Committee was unaware of the provision in the Bylaws. He also mentioned that the reason for the proposed change was to permit physicians more latitude in attending the scientific sessions and reference committee hearings.

In view of the Bylaw provision, the Board agreed that the schedule for the 1982 Annual Meeting should conform to the format originally presented by the Committee, and that an explanation for the change in scheduling be supplied to the House of Delegates.

In addressing the issue of the Bylaw provision, it was the opinion of the Board that the Bylaws are too restrictive and do not provide much flexibility in developing a format for the annual meeting. Therefore, the Board instructed the Committee on Revision of Constitution and Bylaws to prepare an amendment for consideration by the House in 1982. That proposal appears in the report of the Reference Committee on Revision of Constitution and Bylaws.

The committee considered two additional suggestions: "... that the House meet in two sessions on Saturday, such as 9 to 10:30A.M., and again from 1 to 3P.M., with reference committees following each session"; and "... that the JEMPAC Breakfast be scheduled for 7A.M., on Sunday, in order to avoid a conflict with component society caucus meetings prior to the Monday morning session of the House, at which time reference committee reports will be considered."

The first suggestion will be considered by the Committee for possible inclusion in the 1983 daily schedule; and the second suggestion has been incorporated into the 1982 daily schedule.

In compliance with the recommendation that all scientific sessions be scheduled for Sunday, 10 scientific sections are scheduled to meet on Sunday morning, and 11 will meet on Sunday afternoon. In addition, the New Jersey Medical Women's Association has scheduled a luncheon-meeting, and the New Jersey Committee on Trauma will hold its Annual Spencer T. Snedecor Trauma Oration.

At the time the daily schedule was set up, three categories of exhibits were included. However, because of limited space, technical exhibits had to be eliminated. By so doing, the entire Ballroom will be utilized for sessions of the House, thereby assuring the comfort of the delegates. In addition to a limited number of scientific and informational exhibits, five insurance companies directly associated with MSNJ will present exhibits in the area adjacent to the Ballroom. The Medical Assistants will again sponsor the Message Center in the registration area.

Representatives of the Auxiliary met with officials of Resorts International and plans were made to coordinate the activities of MSNJ with the Auxiliary. The AMA-ERF Boutique and Auxiliary Arts and Crafts again will be presented.

The Middlesex County Medical Society and the Medical Society of New Jersey will cohost the Inaugural Reception and Dinner-Dance to be held on Sunday evening, May 16; tickets will be available.

The reorganization meeting of the Board of Trustees will be held following the adjournment of the House of Delegates on Monday afternoon, to be followed by a dinner including Trustee spouses.

Two reference committees will be eliminated beginning with the 1982 Convention. Reference Committees will be as follows:

Reference Committee "A"-Policy

all who register at the Convention.

Reference Committee "B"—Finance and Membership Reference Committee "C"—Insurance and Medical Ser-

vices
Reference Committee "D"—Education, Legislation, Pub-

Reference Committee "E"—Mental Health, Public Health

Reference Committee "F"—Miscellaneous

Reference Committee on Constitution and Bylaws
The Advance Program was mailed to the membership in
early March, and the Official Program will be distributed to

RECOMMENDATIONS

- 1. That the daily schedule for the 217th Annual Meeting follow closely that which was approved for the 216th Annual Meeting.
- 2. That the 217th Annual Meeting be held at Resorts International, Atlantic City, April 30 to May 2, 1983.

The Reference Committee approves Atlantic City as the site for the 217th Annual Meeting of the Medical Society of New Jersey to be held at Resorts International Hotel. The Committee acknowledged the shortage of hotel rooms and exhibit space. The Committee suggests that when rooms are insufficient, backup should be provided at comparable hotels. When a member is not to be housed in the primary hotel, the member should be advised of this prior to arrival.

The Reference Committee recommends approval of the above recommendations.

HOUSE ACTION: Approved.

The Reference Committee recommends that the report be filed.

HOUSE ACTION: Filed.

Board of Trustees' Items

EXECUTIVE COORDINATOR FOR COMMITTEE ON IMPAIRED PHYSICIANS

(Reference Committee "F")

In October, 1980, the Board approved the acquisition of a full-time coordinator for the Committee on Impaired Physicians with the understanding that the financing would be obtained from other sources. Commitments to provide \$50,000 per year have been made by the Medical Inter-Insurance Exchange of New Jersey and the New Jersey Hospital Association.

Authorization was given this year by the Board to expend money for office space, secretarial personnel, and travel expenses to support the program of the Committee.

There was considerable discussion; the members of the Reference Committee regretted that no one was present who had any definite information regarding this matter. Concerns were expressed that the Board of Trustees should maintain control of the Committee on Impaired Physicians despite outside funding.

The Reference Committee **recommends** that the report be filed.

HOUSE ACTION: Referred back to the Board of Trustees.

LIFELINE PROGRAM

(Reference Committee "F")

In July, 1981, the Board approved a recommendation calling for the Medical Society of New Jersey to accept a one-year commitment to serve as statewide coordinator of the Lifeline Program—a pilot program funded by the Hunterdon Health Fund to assist shutins, elderly, and disabled individuals in need of emergency health services by means of a communication device for contacting the proper health personnel or facility.

The Reference Committee recommends that the report be filed

Resolutions



Introduced by:

Board of Trustees

Subject: Referred to: American Association of Medical Assistants-State of New Jersey, Inc.

Reference Committee "F"

Whereas, the American Association of Medical Assistants is not only an outstanding professional organization, dedicated to the education and self-improvement of medical assistants, but is the one and only professional organization endorsed and continuously supported through liaison with organized medicine at all levels; and

Whereas, it is recognized that the loyalty, allegiance, and devotion of the members of this organization to their doctoremployers and to organized medicine in the majority of instances goes well beyond the common grounds of the employer-employee relationship; and

Whereas, the American Association of Medical Assistants is probably the most constant, able, and devoted ally of the medical profession; now therefore be it

Resolved, that the Medical Society of New Jersey urge individual physicians to pay the dues of their medical assistants, so that membership in the American Association of Medical Assistants-State of New Jersey, Inc. will continue to grow.

The Reference Committee recommends that Resolution #3 be adopted.

HOUSE ACTION: Not adopted.

#7

Introduced by:

Dirck L. Brendlinger, M.D., Delegate, Burlington County

Subject:

Nuclear Arms Control

Reference Committee "F" Referred to:

Whereas, expressions of concern over the danger of nuclear war have engendered calls from church groups, township councils, student publications, and the United States Congress for a freeze on development and deployment of nuclear weapons; and

Whereas, physicians are as concerned as any group about preventing nuclear war; and

Whereas, a freeze on nuclear weapons at this time only will legitimize wide advantages now enjoyed by the Soviet Union and lessen the need for compromise by the Soviets; and

Whereas, any pressure exerted upon Western democratic governments for nuclear disarmament is not matched by similar pressures upon the Soviet leadership; now therefore be it

Resolved, that the Medical Society of New Jersey considers a freeze on development and deployment of nuclear arms more likely to cause war than prevent it and counterproductive to the interests of the free world; and be it

Resolved, that the Medical Society of New Jersey supports reduction in nuclear arms through the Strategic Arms Reduction Talks.

There was considerable discussion and all of the discussion was in favor of nuclear arms reduction.

The Reference Committee recommends that Resolution #7 be adopted.

HOUSE ACTION: Adopted.

#8

Introduced by:

Dirck L. Brendlinger, M.D., Delegate, Burlington County

Subject: Fetus Identification

Referred to:

Reference Committee "F"

Whereas, it is indisputable that the zygote formed by union of the human sperm with human ovum represents an individual of the genus Homo and the species sapiens; and

Whereas, a species is defined as "a group of organisms that actually interbreed and are reproductively isolated from all other such groups";1 and

Whereas, this individual exhibits life, defined as "the property or quality manifested in functions such as metabolism, growth, response to stimulation, and reproduction, by which living organisms are distinguished from dead organisms or from inanimate matter"; now therefore be it

Resolved, that the Medical Society of New Jersey recognizes that the fetus of Homo sapiens is a living human.

- 1. Curtis H: Biology. New York, NY, Worth Publishers, 1976.
- 2. Morris W: The American Heritage Dictionary. Boston, MA,

American Heritage Publishing Co., Inc., 1971.

The Committee voted 4 to 1 against Resolution #8. The majority felt that the statement is an accepted fact and it is not necessary for the Society the establish a position on it.

The Reference Committee recommends that Resolution #8 be rejected.

HOUSE ACTION: Rejected in accordance with the recommendation of the Reference Committee.

#19

Introduced by: Board of Trustees

Subject: Voluntary Contributions to the Foundation of the University of Medicine and Dentistry of New Jersey

Referred to: Reference Committee "F"

Resolved, that the House of Delegates urges each and every member of the Medical Society of New Jersey to make a voluntary contribution to the Foundation of the University of Medicine and Dentistry of New Jersey in support of its research programs.

The Reference Committee recommends that Resolution

#19 be adopted.

HOUSE ACTION: Adopted.

1982 House of Delegates Election

Augustus L. Baker, Jr., M.D., Chairman

Office	Term	Nominee and County
President-Elect	1 year	Alexander D. Kovacs, M.D., Union
1st Vice-President	1 year	Frank Y. Watson, M.D., Essex
2nd Vice-President	1 year	Ralph J. Fioretti, M.D., Bergen
Treasurer	1 year	Paul J. Hirsch, M.D., Somerset
Trustees:		
1st District	3 years	Myles C. Morrison, Jr., M.D., Morris
2nd District	1 year	Frank Gingerelli, M.D., Bergen
4th District	3 years	Harry M. Carnes, M.D., Camden
4th District	3 years	Edwin W. Messey, M.D., Burlington
5th District	3 years	Harry W. Fullerton, Jr., M.D., Salem
Judicial Councilor: 3rd District	3 years	Albert F. Moriconi, M.D., Mercer
3rd District	5 years	Albert F. Moricolli, M.D., Mercel
AMA Delegates:	2 years	Alfred A. Alessi, M.D., Bergen
	2 years	Frederick W. Durham, M.D., Camden
	2 years	Karl T. Franzoni, M.D., Mercer
	2 years	John S. Madara, M.D., Salem
	2 years	Henry J. Mineur, M.D., Union
AMA Alternate Delegates:	2 years	Palma E. Formica, M.D., Middlesex
Attant Attenuate Delegates.	2 years	Charles S. Krueger, M.D., Burlington
	2 years	Carl A: Restivo, Sr., M.D., Hudson
Delegates and Alternate Delegates to New York:	Other State	s:
Delegate	l year	F. Sterling Brown, M.D., Atlantic
Alternate	l year	John J. Pastore, M.D., Cumberland
Compatient		
Connecticut:	Lucar	Merton L. Griswold, Jr., M.D., Union
Delegate	l year	Gastone A. Milano, M.D., Atlantic
Alternate	l year	Gastone A. Milano, M.D., Atlantic
Administrative Councils:		
Legislation:	2	
2nd District	3 years	John J. Crosby, Jr., M.D., Hudson
3rd District	3 years	Leon A. Fraser, M.D., Mercer
Medical Services:		
2nd District	3 years	Joseph W. Fleisher, M.D., Hudson
3rd District	3 years	David A. Willard, M.D., Mercer
M . L II . Id		
Mental Health: 4th District	3 years	George L. Triebenbacher, M.D., Ocean
5th District	3 years	Friedrich K. Racke, M.D., Cumberland
on District	5 years	ricultar K. Nacke, M.D., Cumberland
Public Health:		
5th District	2 years	Narasimhaloo Venugopal, M.D., Cumberland
2nd District	3 years	Albert Ehrlich, M.D., Hudson
3rd District	3 years	Thomas E. Desmond, M.D., Middlesex
Public Relations:		
3rd District	3 years	Jon Marsicano, M.D., Middlesex
6th Member	3 years	Edwin W. Messey, M.D., Burlington
Standing Committees:	2	Joseph P. Cillo, M.D. Union
Annual Meeting	3 years	Joseph P. Cillo, M.D., Union Frank R. Romano, M.D., Union
Auxiliary Advisory Finance and Budget	3 years 3 years	Palma E. Formica, M.D., Union
Medical Defense	5 years	rama E. Formica, W.D., Widdlesex
and Insurance	3 years	Michael J. Doyle, M.D., Monmouth
Medical Education	3 years	William Pomerantz, M.D., Morris
Publication	3 years	Paul J. Hirsch, M.D., Somerset
	,	

ATTENDANCE

County	Delegat	es Mei	nbers	Total
Atlantic	8		36	 44
Bergen	32		26	 58
Burlington	11		10	 21
Camdén	23		38	 61
Cape May	3		2	 5
Cumberland	5		6	 11
Essex	60		100	 160
Gloucester	4		11	 15
Hudson	21		22	 43
Hunterdon	2		_	 2
Mercer	24		33	 57
Middlesex	25		41	 66
Monmouth	18		39	 57
Morris	20		15	 35
Ocean	11		16	 27
Passaic	20		32	 52
Salem	3		3	 6
Somerset	7		8	 15
Sussex	3		1	 4
Union	32		34	 66
Warren	3		3	 6
Fellows and Officers	21		_	 21
	356		476	832
Physician Guests				 89
Physician Exhibitors				 2
Total Physician Registration				923
Auxiliary				302
Visitors				284
Exhibitors				45
Total Registration				 1,554

Five-Year Comparative Registration Figures

Year	Physicians	Others	Total
1982	923	631	1,554
1981	892	600	1,492
1980	866	566	1,432
1979	838	728	1,566
1978	962	678	1.640







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